



NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Office of the Registrar

Yearbook - Part 6 Faculty of Health and Applied Sciences

Photo: Arthur C Peuckert | www.impact-visuals.com

A photograph of a modern, multi-story university building with white balconies and a central section with a dark, slatted facade. The sky is a mix of blue and orange, suggesting a sunset or sunrise. A teal diagonal banner in the bottom right corner contains the year '2019'.

2019



PAMIBIA
UNIVERSITY
OF SCIENCE
AND TECHNOLOGY

YEARBOOK 2019

PART

6

FACULTY OF
HEALTH AND
APPLIED SCIENCES

(**Note:** The final interpretation of all regulations in this Yearbook for the *Faculty of Health and Applied Sciences* shall be vested in Council).

NOTE

The *Yearbook for the Faculty of Health and Applied Sciences* is valid for 2019 only. Curricula and syllabi may be amended for 2020.

It is obtainable free of charge from:

The Registrar
Namibia University of Science and Technology (NUST)
Private Bag 13388
Windhoek
NAMIBIA

Location: 13 Storch Street, Windhoek

Telephone: (+264-61) 207 2008 / 2118

Fax: (+264-61) 207 9118

Website: www.nust.na

E-mail: registrar@nust.na

Although the information contained in this Yearbook has been compiled as accurately as possible, Council and Senate accept no responsibility for any errors and omissions, which may occur. The University retains the right to amend regulations or conditions without prior notice.

Due to the rapidly changing external environment that many programmes operate in, and the University's desire to remain constantly relevant in its offerings, some programmes may be significantly amended after publication of this Yearbook. Please consult our website for the latest versions of our curricula, syllabi and academic regulations.

The fact that particulars of a specific programme, field of study, subject, or course have been included in this Yearbook does not necessarily mean that such a programme, field of study, subject, or course will be offered in the academic year 2019.

© Namibia University of Science and Technology/Office of the Registrar.

CONTACT DETAILS**Central Administration and Lecturers' Offices**

Postal Address: Private Bag 13388, Windhoek, NAMIBIA
Street Address: 13 Storch Street, Windhoek, NAMIBIA
Student post to: Private Bag 13388, Windhoek, NAMIBIA
Website: www.nust.na
Email: registrar@nust.na

CENTRE FOR OPEN AND LIFELONG LEARNING

Postal Address: Private Bag 13388, Windhoek, NAMIBIA
Street Address: 13 Storch Street, Windhoek, NAMIBIA
Tel: 207 2081/2206
Fax: 207 9206
Website: www.nust.na/coll
E-mail: coll@nust.na

TELEPHONE NUMBERS

NUST Switchboard Operator:		207 9111
Office of the Vice Chancellor:	Vice Chancellor	207 2000/1-3
	Deputy Vice Chancellor: Administration and Finance	207 2004/5
	Deputy Vice Chancellor: Academic Affairs	207 2280/1
	Deputy Vice Chancellor: Research and Innovation	207 2181
Office of the Registrar:	Registrar	207 2008/2118
	Assistant Registrar: Academic Administration	207 2351/2667
	Examinations Office	207 2027/2412
	Student Enquiries, Registrations and Records	207 2056
Office of the Bursar:	Bursar	207 2007
Department of Student Services:	Director	207 2165
	Students Councillor	207 2270
	Cultural Department	207 2070
	Sports Department	207 2298
Students Representative Council:		207 2457
Information & Communications Technology:	Director	207 2275
Library & Information Services:	Library, Enquiries and Loan Counter	207 2022/2621
Hostels:		
Men: Shangri-La	Superintendent	207 2132
House Committee		207 2375
Call Office		229413/233130
Ladies: Mon Resa	Superintendent	207 2131
House Committee		207 2127
Call Office		229405/234193/ 233100
Ladies: Höpker	Superintendent	207 2131
House Committee		207 2130

NB: The international code in all numbers is +264-61

CONTENTS

FACULTY OF HEALTH AND APPLIED SCIENCES

CODE 400

	Page
Note	ii
Contact Details	iii
Contents	iv
Staff	1

UNDERGRADUATE PROGRAMMES

Department of Health Sciences	4
Bachelor of Medical Laboratory Science (Revised) (Phased in 2017)	4
Bachelor of Biomedical Sciences (Phasing out from 2017)	9
Bachelor of Emergency Medical Care (Phased in 2018)	11
Bachelor of Environmental Health Sciences (Revised) (Phased in 2017)	14
Bachelor of Science in Health Information Systems Management (Phased in 2016)	18
Bachelor of Human Nutrition (New Programme) (Phased in 2018)	20
 Department of Mathematics and Statistics	 23
Bachelor of Science in Applied Mathematics and Statistics (Revised) (Phased in from 2015)	23
Bachelor of Science in Applied Mathematics and Statistics (Phased out from 2015)	26
 Department of Natural & Applied Sciences	 28
Bachelor of Science (Biology, Chemistry, Physics, Mathematics)	28

POSTGRADUATE PROGRAMMES

Department of Health Sciences	31
Postgraduate Diploma in Health Information Systems Management (Phased in 2017)	31
Bachelor of Emergency Medical Care Honours (New Programme) (Phasing in 2019)	33
Master of Health Sciences (Phased in 2017)	34
 Department of Natural & Applied Sciences	 36
Postgraduate Diploma in Radiation Science and Technology (Phased in 2016)	36
Bachelor of Science Honours (Phased in 2018)	38
 Department of Mathematics and Statistics	 41
Bachelor of Science Honours in Applied Mathematics (Revised) (Phased in 2015)	41
Master of Science in Applied Mathematics (Phased in 2016)	43
Bachelor of Science Honours in Applied Statistics (Revised Programme) (Phased in 2015)	45
Master of Science in Applied Statistics (Phased in 2016)	47

FACULTY OF HEALTH AND APPLIED SCIENCES**CODE 400****OFFICE OF THE DEAN****Code: 401**

Dean	:	Dr Sehaam Khan , PhD Molecular Virology (UWC), M.Sc. Microbiology <i>Cum Laude</i> (UWC), B.Sc. Hons. Microbiology (UWC), B.Sc. (UWC)
Associate Dean: T&L	:	Dr Munyaradzi Mukesi , PhD: Micro, M.Sc.: Clinical Biochemistry (UZ), B.Sc.: Hons. Medical Lab Sci. (UZ), Dip.: Med. Lab. Technology (UZ), pg Cert Higher Education (NUST)
Associate Dean: Research	:	Prof Omotayo Awofolu , PhD Chem. (Env. Studies) (Univ. of Fort Hare)
Faculty Officer	:	Mercia Richards , MLCM (NUST), B.Tech.: OMT (PoN)
Telephone Number	:	061-207 2964
Fax Number	:	061-207 9964
Email	:	mrichards@nust.na
Secretary	:	Muriel Mouton , HC: OMT (PoN)
Telephone Number	:	061-207-2870
Fax Number	:	061-207-9870
E-mail Address	:	mmouton@nust.na

DEPARTMENT OF HEALTH SCIENCES**Code 57**

Head of Department (Acting)	:	Dr Larai Aku-Akai , M.: Public Health (West African College of Physicians), B. Med.: B.: Surgery (MBBS) (Nigeria)
Secretary	:	Felicitas Tjandero
Telephone Number	:	061-207-2899
Fax Number	:	061-207-9899
E-mail Address	:	ftjandero@nust.na

MEDICAL LABORATORY SCIENCES

Academic Staff	:	Prof Sylvester R Moyo , D.Phil.: Med. Microbiology (NTNU), Lic. Med. Sci. Med. Microbiology (Lund Univ.), HNC (Liverpool Polytechnic), Dip: Med. Lab. Tech. (Evelyn Hone)
	:	Dr Yapo Aboua , D. Tech.: Biomed Tech (CPUT), M.Tech.: Biomed. Tech. (CPUT), B.Tech.: Biomed. Tech. (CPUT), B.Sci.: Biochem & Micro (UNISA)
	:	Elzabe van der Colf , M.Sc.: Med. Sci. (Stell), B.Tech.: Biomed. Tech. (Pen. Tech.), B. Med. Sci. (UFS), B. Med. Sci. Hons. (UFS)
	:	Fredrika Engelbrecht , M.Tech.: Biomed. Tech. (CPUT), ND: Biomed. Tech. (Cape Tech.)
	:	Vanessa Tjijenda , M.Sc. Biomed. Sc. (Medical Microbiology), ND: Med. Tech. (CPUT)
	:	Edwig Hauwanga , B.Sc. Hons. Biomed. Sci. (PoN), Specialisation Cert.: Blood Transfusion, Adv. PG Dip. Bus. Project Mgmt. (UCT)
Laboratory Staff	:	Cara-Mia Dunaiski , M.Sc. Biomed. Sci. (Bonn Rhein Sieg Univ. of Appl Sci.), B.Sc. Hons. Biomed. Sci. (PoN)
	:	Marjory Hlasek , ND Med. Tech., Cert. Haematology, Cert.: Histology
	:	Ndeyapo O Udjombala , B.Tech.: Systems & Network (PoN), ICDL, Dipl: Comp.
	:	Hubert Shitaleni , B.Sc. Biomed Sci. (PON)
	:	Mutaleni Kamanja , B.Sc. Hone (UNAM), MOL. Biology & Biochemistry
Secretary	:	Christeline Januarie , B. BA (NUST), ND Info. Admin. (PON)
Telephone Number	:	061-207 2970
E-mail Address	:	cjanuarie@nust.na

HEALTH INFORMATION SYSTEMS MANAGEMENT

Programme Coordinator	:	Roswitha Mahalie , M. Public Health (Limpopo Univ.), BA Nursing (UNAM), PGD Midwifery (UNAM), ND Nursing (UNAM)
Academic Staff	:	Erwin Nakafingo , M.: Public Health (Vrije Universitate, Amsterdam), Comprehensive Dip.: Nursing
	:	Jomin George , M.Sc.: Hospital & Health Info. Admin. Admin.
Secretary	:	Felicitas Tjandero
Telephone Number	:	061-207 2899
Fax Number	:	061-207 9899
E-mail Address	:	ftjandero@nust.na

EMERGENCY MEDICAL CARE

Programme Coordinator	:	Carolie Cloete , B.Tech.: EMC (DUT), ND: EMC (CPUT)
Secretary	:	Christeline Januarie , B. BA (NUST)
Telephone Number	:	061-207 2970
Fax Number	:	061-207 9970
Email	:	cjanuarie@nust.na
Academic Staff	:	Cornelia Bauer , B.Tech.: EMC (CPUT), ND: EMC (CPUT)
Clinical Laboratory Technician	:	Elias Thomas , B. Pre-Hosp. EMC (NUST)

ENVIRONMENTAL HEALTH SCIENCES

Programme Coordinator	:	Joshua Hidinwa , B.Tech.: Environ. Health (CPUT), ND.: Environ. Health (Cape Tech)
Secretary	:	Felicitas Tjandero
Telephone Number	:	061-207 2899
Fax Number	:	061-207 9899
E-mail	:	ftjandero@nust.na
Academic Staff	:	Prof Omotayo Awofolu , PhD Chem. (Environ. Studies) (Univ. of Fort Hare)
	:	Immanuel Zeriapi , ND: Environ. Health (UJ), B.Tech.: Environ. Health (CPUT), Cert: Med. Tech. Haematology
	:	Buhlebenkosi Mpofo , M.Sc.: Env. Sci. (Botswana), B.Sc. Env. Health (Solusi Univ.), PGD Edu.
	:	Dr Larai Aku-Akai , M.: Pub. Health (West African College of Physicians), B. Med.: Bachelor of Surgery (MBBS) (Nigeria)
	:	Charmaine Jansen , M.: Pub. Health (Cardiff Univ.), B.Tech.: Environ. Health (Cape Tech.), ND: Environ. Health (Pen. Tech.), PGD Dev. Studies (ZOU)
Laboratory Technologist	:	Rebecca Shooya , B. Env. Health Sci. (PoN)
Laboratory Assistant	:	Sekunda Hamunyela , NVC: Water Care Level III (Namwater, HR), Basic SHE Inspection (NOSA), Water Reclamation & Adv. Water Treatment (Aqua Service & Engineering)

HUMAN NUTRITION

Programme Coordinator	:	Dr Adam Flowers , MD (Univ. Texas Med. School, Houston), M. Publ. Health (Univ. Texas Med. School, Houston), B: Zoology (Univ. Texas, Austin)
Secretary	:	Felicitas Tjandero
Telephone Number	:	061-207 2899
Fax Number	:	061-207 9899
E-mail	:	ftjandero@nust.na

DEPARTMENT OF MATHEMATICS & STATISTICS

Code 51

Head of Department	:	Dr Onesmus Shuungula , PhD Maths. (WITS), M.Sc.: Maths. (UCT), B.Sc.: Hons. Maths. (UCT), B.Sc.: Maths. & Stats. (UNAM)
Deputy Head of Department	:	Dr Serge Neossi Nguetchue , PhD: Maths (WITS), M.Sc.: Maths. (UY1), B.Sc. Hons.: Maths. (UY1), B.Sc.: Maths. (UY1, CMR)
Programme Coordinator (UG): Maths and Stats	:	Benson Obabueki , M.Sc.: Maths. (JOS), B.Sc.: Maths. (Benin), NC: IT
Programme Coordinator (PG): Maths and Stats	:	Dr Adetayo Eegunjobi , PhD Appl. Maths (CPUT), M.Sc.: Maths. (Ibadan), B.Tech. Hons.: Ind. Maths (FUTA)
Programme Coordinator (PG): Stats	:	Dr Dismas Ntirampeba , PhD Stats. (UNAM), M.Sc.: Stats. (UCT), B.Sc.: Hons. Stats. (UCT), B. Sc.: Maths. & Stats. (UNAM), PG Dipl: Edu. Maths. & Phys. Sci.
Maths Tutoring Centre Coordinator	:	Susan Mwewa , MBA (CBU, Zambia), B.Sc.: Edu. Maths. (UNZA)
Secretary	:	Lidwina Newaka , BA Hons. Communication (NUST), Dipl.: PR (UNAM)
Telephone Number	:	061-207 2913
Fax Number	:	061-207 9913
E-mail	:	lnewaka@nust.na
Academic Staff Lecturer	:	Prof Immanuel Ajibola , PhD Maths. (Zaria), M.Sc.: Maths. (Ife), PGDC. Sci. (Lagos), B.Sc. Hons. Physics/Maths (Lagos)
	:	Jonas Amunyela , B.Sc.: Hons. Stats., B.Sc.: Maths. & Stats. (PoN)
	:	Prof Günter Heimbeck , Dr. rer. Nat. habil. Maths. (Würzburg), Dr. rer. Nat. Maths. (Würzburg), Dipl: Maths. (Würzburg)
	:	Tobias Kaenandunge , B.Sc.: Hons. Applied Maths. (NUST), B.Sc.: Maths. & Stats. (UNAM)
	:	Dr Victor Katoma , PhD Maths. Modeling (UCT), M.Sc.: Comp. & Maths. Modeling (UCT), B.Sc.: Pure & Comp. Maths. (Netherlands)

- : **Owen PL Mtambo**, M.Sc.: Biostatistics (UNIMA), B.Sc.: Maths. Sci. (Comp. Sc., Maths. & Stats.) (UNIMA), Dip. Edu.: Maths., Phys. Sci. & Chem. (UNIMA)
- : **Gabriel Mbokoma**, B.Sc.: Hons. Maths, B.Sc.: Maths & Stats. (NUST)
- : **Rapikama Mumbuu**, B.Sc. Hons.: Stats. (PoN), B.Ed. Hons. (NWU), B.Sc.: Maths & Stats (PoN)
- : **Etuhole-Moshili Mwahi**, M.Sc.: Stats., B.Sc.: Maths. & Stats. (UNAM)
- : **Frans Ndinodiva**, B.Sc.: Hons. Maths., B.Sc.: Maths. & Stats. (PoN), B.Tech.: Econ. (PoN)
- : **Prof Sunday A. Reju**, PhD Computational Maths/Optimisation (Ilorin), M.Sc.: Applied Maths-Continuum Mech. (Ibadan), B.Sc. Hons. Maths. (Jos)
- : **Andrew Roux**, M.Phil. (Stell), Dipl: Data Metrics (UNISA), PGCHE (NUST), Pr. Sc. Nat.
- : **Aina Sakaria**, B.Sc. Hons.: Maths., B.Sc.: Maths. & Stats. (PoN)
- : **Hilma Yvonne Shaanika**, B.Sc. Hons.: Maths, B.Sc.: Maths. & Stats. (PoN)
- : **Jan Johannes Swartz**, M.Sc.: Social Stats. (SOTON), Dipl: Stats. (EASTC)
- : **Gift Tapedzesa**, M.Sc.: Maths. (UZ), B.Sc.: Applied Maths. (NUST, ZIM)
- : **Dr Dibaba Gemechu**, PhD: Maths. & Stats., (UP), M.Sc.: Biostats. (AAU), B.Sc.: Stats. (AAU)
- : **Lutopu Khoa**, B.Sc.: Hons.: Maths. & Stats. (UNAM)
- : **Dr Cliff Kikawa**, D. Tech.: Stats. (TUT), M. Stats. (MUK), B.Sc.: Maths. & Physics (NUST)
- : **Ilenikemanya Ndadi**, B.Sc.: Hons.: Maths., B.Sc.: Maths. & Stats. (NUST)

DEPARTMENT OF NATURAL AND APPLIED SCIENCES**Code 41**

- Head of Department : **Prof Habauka Kwaambwa**, PhD (Bristol), M.Sc. (Bristol), B.Sc. (UNZA)
- Deputy Head of Department : **Prof Percy Chimwamurombe**, PhD Genetics (UP), M.Sc.: Biotech. (Univ. of Zim.), B.Sc. Hons.: Biochem. (Univ. of Zim.)
- Secretary : **Ester Vaino**, B.Tech.: OMT (NUST)
- Telephone Number : 061-207-2012
- Fax Number : 061-207-9012
- E-mail Address : evaino@nust.na
- Programme Coordinator : **Dr Jeya Kennedy**, PhD (Bharathiar), M.Sc. (Bharathiar), B.Sc. (Bharathiar)
- Academic Staff : **Dr Sylvanus Onjefu**, PhD Env. Physics, M.Sc.: Env. Physics (Nigeria), B.Sc.: Physics Hons. (Benue)
- : **Dr Euodia Hess**, PhD: Chem. Sci. (UWC), M.Sc.
- : **Dr Dipti Sahu**, PhD Physics (India), M.Sc. Physics (India), B.Sc. Hons. Physics (India)
- : **Dr Julien Lusilao**, PhD Env. Anal. Chem. (Wits), M.Sc. Env. Analytical Chem. (Wits), B.Sc. Hons.: Chem. (Univ. of Kinshasha)
- : **Dr Lamech Mwapagha**, PhD Med. Biochem. (UCT), M.Sc. Med. Virology (Kenya), B.Sc. Med. Biochem. (Kenya)
- : **Dr Edosa Omoregie**, PhD Fisheries (Jos), M.Sc. Fisheries Mgmt. (UK), M.Sc. Applied Hydrobiology & Fisheries (Jos), Zoology (Jos)
- : **Munyaradzi Zivuku**, M.Sc. Applied Radiation Sc. & Tech. (NWU), B.Sc: Hons. Applied Radiation Sc. & Tech. (NWU), B.Sc: Hons. Appl. Biol. & Chem. (NUST), City and Guilds Quality
- : **Vaino Indongo**, B. Sc.: Maths. & Physics (UNAM), M. Phil.: Med. Physics (UG)
- : **Petrus T Paulus**, MIWRM NUST), B.Sc. Hons.: Appl. Sc.: Water Utilisation (UP), B.Sc.: Molecular & Physiological Biol. & Chem. (UNAM)
- : **Emmanuel Ejembi**, B.Sc. Hons.: Physics (Nigeria), M.Sc.: Env. Phys. (Nigeria), M.Sc. Comp. Sci. (NUST)
- Laboratory Staff : **Marta Amuanyena**, B.Tech: Econ. (PoN), B.Tech: Sc. Chem. & Molecular Biology (UNAM)
- : **Tauno Nanhongo**, B.Sc. Hons.: Physics & Comp. Sci.
- : **Mary Mutwa**, B.Sc.: Chem. & Molecular & Phys. Biol. (UNAM)
- : **Elizabeth Nashidengo**, B.Sc.: Chem. & Molecular & Phys. Biol. (UNAM)
- : **Natalia Shakela**, B.Sc.: Chem. major & Phys. minor (NUST)

UNDERGRADUATE PROGRAMMES

DEPARTMENT OF HEALTH SCIENCES

Code 57

QUALIFICATIONS OFFERED

Bachelor of Medical Laboratory Sciences (Revised Programme) (Phased in 2017)	08BMLS
Bachelor of Biomedical Sciences (Phased out 2017)	50BBMS
Bachelor of Emergency Medical Care (Phased in 2018)	07BOMC
Bachelor of Environmental Health Sciences (Revised Programme) (Phased in 2017)	08BOHS
Bachelor of Science in Health Information Systems Management (Phased in 2016)	07BHIS
Bachelor of Human Nutrition (New programme) (Phasing in 2019)	08BOHN

BACHELOR OF MEDICAL LABORATORY SCIENCES (Revised Programme) (Phased in 2017)

08BMLS

NQF Level: 8

NQF Credits: 511

NQF Qualification ID: Q0991

Description

The Bachelor of Medical Laboratory Science is a professional degree, designed for registration at level 8 of the National Qualifications Framework (NQF). The programme demands a high level of theoretical and practical engagement, as well as intellectual independence and aims to foster deepened, comprehensive and systematic expertise in the major cognate area of learning, i.e. Medical Laboratory Science. The programme further equips students with cognitive and intellectual skills, key transferable skills and professional, technical and practical skills that would enable them to apply principles and techniques in the routine and specialised analysis of biological specimens and other substances. Students will also be capacitated to organise laboratory operations in clinical diagnostic laboratories in accordance with Good Laboratory Practice (GLP). Students will be able to integrate laboratory tests and results with pathophysiological conditions and conduct supervised research based on sound scientific principles. Overall, the programme aims to produce highly flexible and well-trained graduates who are able to adapt to a changing environment and comply with statutory requirements in relation to quality, ethics and safety.

Successful completion of the Bachelor of Medical Laboratory Science and the industry examination will enable graduates to register with the Health Professions Council of Namibia (HPCNA).

Admission Criteria

In addition to meeting the University's minimum admission requirements as spelt out in the general rules, candidates must have a total of 18 points on the evaluation scale for Physical Science, Mathematics and Biology, in a combination of symbols on NSSC Higher or Ordinary Level or both. No symbol for any one or more of the subjects may be lower than a C on Ordinary Level or a 4 on Higher Level. Candidates must further have obtained at least a D on Ordinary Level for English.

The Head of Department or his/her nominee may admit candidates who do not have the required minimum symbol for one of the above subjects, provided that such candidates have very strong symbols for the other two subjects and that the total point score for the three subjects is not lower than 18.

Students who meet the above admission requirements will be subjected to a selection, which may entail a written test, and selection process using ranking of results for Biology, Physical Science and Mathematics.

Articulation Arrangements

The transfer of credits will be dealt with according to NUST rules and regulations on Recognition of Prior Learning. These provide for course by course credits as well as credit transfer by volume under certain academic conditions. Maximum credits that can be granted are 50 % of the credits for a qualification.

Graduates of this programme will under normal circumstances be able to pursue further studies in Medical Laboratory Science, or a related cognate area of learning, at NQF Level 9.

Mode of Delivery

This programme will be offered on the full-time mode of study in accordance with NUST rules and regulations.

Requirements for Qualification Award

The Bachelor of Medical Laboratory Science designed for registration at NQF level 8, will be awarded to a student credited with a minimum of 511 NQF credits, this total includes the courses making up the 465 cognitive credits and then the core institutional courses which is 46 credits. In addition, students must meet the administrative and financial requirements as spelt out in Part 1 of NUST Yearbook.

Assessment Strategies

Students will be assessed through continuous and summative assessment. These assessments will focus on the achievement of qualification outcomes and take the form of problem solving exercises, individual/group assignments and presentations, case studies, report writing, practical application of skills and competencies, tutorials, practical projects and questioning (tests and/or examinations). The use of validating end of term assessments may be minimised in order to free students' intellectual capacity for broader cognitive development. Assessment by means of tests and/or examinations will, therefore, be restricted to situations where it is necessary to establish that a previous specific performance can be repeated or a specific skill can be transferred. In accordance with NUST policy on diversified continuous assessment, each course will have a minimum of six assessment events. Courses that are assessed using a combination of continuous assessment and a final end-of-term examination must have at least three assessments.

In this programme, all courses will be assessed using a combination of continuous assessment and an end-of-semester examination in the ratio 60 % (continuous assessment) and 40 % (examination).

Assessment of the Work Integrated Learning components will be dealt with by means of close cooperation between WIL clinical instructors and NUST academics by means of a work manual in which students have to report on their activities in the simulation laboratory and/or work place and signed-off by the instructors. The mini-thesis will be assessed in accordance with NUST rules for studies at honours level.

Transition Arrangements

The Bachelor of Biomedical Sciences (old curriculum) will be phased out systematically until 2022 with minimum disruption to existing students' learning progression. The last intake of 1st year students for the out-phasing programme (old curriculum) was in January 2016.

Students who are registered in 2016 for the 1st year of the old curriculum, and who do not meet the rules for progression to the 2nd year at the end of 2016, will be required to change their registration to the revised programme (revised curriculum), and will be granted credits on a course-by-course basis in accordance with information in Table 1, below. Similarly, students who are registered in 2016 for the 1st year of the old curriculum, and who meet the minimum requirements for progression to the 2nd year at the end of 2016, will also be required to transition to the revised programme (revised curriculum), but will be required to do Cell and Molecular Biology. Such student, will be exempted from the newly introduced English communication courses, and Information Competence, but will have to meet all other requirements of the revised programme (revised curriculum). Such arrangements will be done in consultation with office of the Registrar to ensure that students do not lose credits.

Students who are registered in 2016 for the 2nd, 3rd or 4th year of the old curriculum will be required to complete their studies, based on the requirements of the old curriculum.

The revised Bachelor of Medical Laboratory Science (revised curriculum) will take effect from January 2017 with the implementation of the 1st and 2nd years. The revised programme will be fully implemented by 2019. Courses will only be offered based on the new/revised syllabi in 2017 (1st and 2nd year), 2018 (3rd year), and 2019 (4th year). Students who fail any of the courses on the old curriculum will be required to repeat such courses based on the syllabi of new/revised corresponding courses (please refer to Table 2, below, for information on the new/revised corresponding courses to be done, if courses on the old curriculum are failed). The deadline for complete phasing out of the Bachelor of Biomedical Sciences (old curriculum) is 2022 after which students must automatically change registration to the revised programme (new curriculum) and fulfil all requirements of the new curriculum.

Table 1: Courses to be credited

Course Code	Bachelor of Biomedical Sciences (Old Courses)	Course Code	Bachelor of Medical Laboratory Science (New/ Revised Corresponding Courses to be Done, if Failed)
CEM110S	Medical Chemistry	HSC511S	Health Science Chemistry
MPH110S	Medical Physics	HSP511S	Health Science Physics
BCL110S	Biostatistics and Calculations	HSS511S	Health Science Statistics
CUS411S	Computer User Skills	CUS411S	Computer User Skills
EAP511S	English for Academic Purposes	EAP511S	English for Academic Purposes
LAP110S	Laboratory Principles	IML511S	Introduction to Medical Laboratory Science
ALP120S	Applied Laboratory Principles		
BMB120S	Molecular Biology	CMB521S	Cell and Molecular Biology
CEB210S	Cell Biology		
HPY110S	Human Anatomy and Physiology A	HPY511S	Human Anatomy and Physiology 1A
IMY120S	Immunology	IMY521S	Immunology
HPY120S	Human Anatomy and Physiology B	HPY521S	Human Anatomy and Physiology 1B
BCH120S	Biochemistry	BIO521S	Biochemistry
MMB210S	Medical Microbiology 1	MMB611S	Medical Microbiology 2A
HAM210S	Haematology 1	HAM611S	Haematology 2A
CLC210S	Clinical Chemistry 1	CLC611S	Clinical Chemistry 2A
MMB220S	Medical Microbiology 2	MMB621S	Medical Microbiology 2B
HAM220S	Haematology 2	HAM621S	Haematology 2B
CLC220S	Clinical Chemistry 2	CLC621S	Clinical Chemistry 2B
MOD310S	Molecular Diagnostics	MOD621S	Molecular Diagnostics
MMB310S	Medical Microbiology 3	MMB711S	Medical Microbiology 3
HAM310S	Haematology 3	HAM711S	Haematology 3
CLC310S	Clinical Chemistry 3	CLC711S	Clinical Chemistry 3
RES310S	Research Methodology	RMA821S	Research Methodology
BMT320S	Experiential learning A	WLB721S	WIL 3
BMT410S	Experiential learning B	WLB811S	WIL 4A
LAM320S	Medical Laboratory Management A	MLM711S	Medical Laboratory Management
LAM420S	Medical Laboratory Management B		
ICP420S	Integrated Clinical Pathology	ICP811S	Integrated Clinical Pathology

Table 2: Corresponding Courses (if Failed). This is not a credit table.

Course Code	Bachelor of Biomedical Sciences (Old Courses)	Course Code	Bachelor of Medical Laboratory Science (New/Revised Corresponding Courses to be Done, if Failed)
CEM110S	Medical Chemistry	HSC511S	Health Science Chemistry
MPH110S	Medical Physics	HSP511S	Health Science Physics
BCL110S	Biostatistics and Calculations	HSS511S	Health Science Statistics
CUS411S	Computer User Skills	CUS411S	Computer User Skills
LAP110S	Laboratory Principles	IML511S	Introduction to Medical Laboratory Science
ALP120S	Applied Laboratory Principles		
BMB120S	Molecular Biology	CMB521S	Cell and Molecular Biology
CEB210S	Cell Biology		
HPY110S	Human Anatomy and Physiology A	HPY511S	Human Anatomy and Physiology 1A
IMY120S	Immunology	IMY521S	Immunology
HPY120S	Human Anatomy and Physiology B	HPY521S	Human Anatomy and Physiology 1B
BCH120S	Biochemistry	BIO521S	Biochemistry
MMB210S	Medical Microbiology 1	MMB611S	Medical Microbiology 2A
HAM210S	Haematology 1	HAM611S	Haematology 2A
CLC210S	Clinical Chemistry 1	CLC611S	Clinical Chemistry 2A
MMB220S	Medical Microbiology 2	MMB621S	Medical Microbiology 2B
HAM220S	Haematology 2	HAM621S	Haematology 2B
CLC220S	Clinical Chemistry 2	CLC621S	Clinical Chemistry 2B
MOD310S	Molecular Diagnostics	MOD621S	Molecular Diagnostics
MMB310S	Medical Microbiology 3	MMB711S	Medical Microbiology 3
HAM310S	Haematology 3	HAM711S	Haematology 3
CLC310S	Clinical Chemistry 3	CLC711S	Clinical Chemistry 3

RES310S	Research Methodology	RMA821S	Research Methodology
BMT320S	Experiential learning A	WLB721S	WIL 3
BMT410S	Experiential learning B	WLB811S	WIL 4A
LAM320S	Medical Laboratory Management A	MLM711S	Medical Laboratory Management
LAM420S	Medical Laboratory Management B		
ICP420S	Integrated Clinical Pathology	ICP811S	Integrated Clinical Pathology

Please Note:

In cases where more than one course in the old curriculum is replaced by one course in the new programme, students who have failed any one of the old courses must do the whole new course. Exemption cannot be granted for less than a whole course.

Table 2 only highlights new/revised core courses in Bachelor of Medical Laboratory Science that should be done if courses on the old curriculum are failed. Service courses from other Departments are excluded, but the rules of relevant Departments apply to this programme as well. Such course will have to be offered until the programme completely phases out in 2022:

- Biology of Diseases

CURRICULUM**Year 1****Semester 1**

Course Title	Course Code	Prerequisite	NQF Level	NQF Credit
Human Anatomy and Physiology 1A	HPY511S	None	5	12
Introduction to Medical Laboratory Science	IML511S	None	5	12
Health Science Chemistry	HSC511S	None	5	10
Health Science Physics	HSP511S	None	5	10
Health Science Statistics	HSS511S	None	5	10
Computer User Skills	CUS411S	None	4	10
Principles of English Language Use	PLU411S	None	4	NCB

Semester 2

English in Practice	EPR511S	Principles of English Language Use	5	NCB
Information Competence	ICT521S	None	5	10
Human Anatomy and Physiology 1B	HPY521S	Human Anatomy and Physiology 1A	5	12
Immunology	IMY521S	Human Anatomy and Physiology 1A	5	12
Biochemistry	BIO521S	Health Science Chemistry	5	10
Cell and Molecular Biology	CMB521S	Human Anatomy and Physiology 1A	5	12

Year 2**Semester 3**

English for Academic Purposes	EAP511S	English in Practice	5	14
Medical Microbiology 2A	MMB611S	Human Anatomy and Physiology 1B Introduction to Medical Laboratory Science	6	13
Haematology 2A	HAM611S	Human Anatomy and Physiology 1B Immunology	6	10
Clinical Chemistry 2A	CLC611S	Biochemistry Introduction to Medical Laboratory Science	6	12
Anatomical Pathology 2A	ANP611S	Human Anatomy and Physiology 1A Human Anatomy and Physiology 1B Cell and Molecular Biology	6	14

Semester 4

Medical Microbiology 2B	MMB621S	Medical Microbiology 2A	6	12
Haematology 2B	HAM621S	Haematology 2A	6	12
Clinical Chemistry 2B	CLC621S	Clinical Chemistry 2A	6	12
Anatomical Pathology 2B	ANP621S	Anatomical Pathology 2A	6	12
Immunohaematology	IMH621S	Human Anatomy and Physiology 1A Human Anatomy and Physiology 1B	6	10
Molecular Diagnostics	MOD621S	Biochemistry Cell and Molecular Biology	6	10

Year 3

Semester 5

Contemporary Issues	CIS610S	None	7	12
Medical Microbiology 3	MMB711S	Medical Microbiology 2B	7	12
Haematology 3	HAM711S	Haematology 2B	7	12
Clinical Chemistry 3	CLC711S	Clinical Chemistry 2B	7	12
Medical Laboratory Management	MLM711S	Introduction to Medical Laboratory Science	7	14

Semester 6

Research Methodology	RMA821S	Health Science Statistics	8	12
Work Integrated Learning 3 (WIL 3)	WLB721S	Medical Microbiology 3 Clinical Chemistry 3 Haematology 3 Molecular Diagnostics Anatomical Pathology 2B	7	50

Year 4

Semester 7

Integrated Clinical Pathology	ICP811S	Work Integrated Learning 3 (WIL 3)	8	14
Work Integrated Learning 4A (WIL 4A)	WLB811S	Work Integrated Learning 3 (WIL 3)	8	50

Semester 8

Mini-Thesis	MTB811S	Research Methodology	8	30
Work Integrated Learning 4B (WIL 4B)	WLB821S	Work Integrated Learning 4A (WIL 4A)	8	40

**BACHELOR OF BIOMEDICAL SCIENCES
(Phased out from 2017)****50BBMS****NQF Level: 8****NQF Credits: 515****NQF Qualification ID: Q0165****Description**

The Bachelor of Biomedical Sciences is a professional degree at NQF Level 8. The degree incorporates a research component and 1 year of practical work-based learning. The programme is offered on full time mode only.

Admission Requirements

Grade 12 with minimum of 25 points as per the NUST general admission requirements. In addition, applicants must meet the following specific admission requirements:

Mathematics	– B on NSSC (O) or 4 on NSSC (H) or equivalent
English	– E on NSSC (O) or 4 on NSSC (H) or equivalent
Biology or Physiology	– B on NSSC (O) or 4 on NSSC (H) or equivalent
Physical Science	– B on NSSC (O) or 4 on NSSC (H) or equivalent

Students meeting these requirements will be subjected to a selection process. Limited space is available in the programme. Meeting admission requirements does not guarantee placement in the programme. No mature age entries will be considered.

CURRICULUM**Year 1****Semester 1**

Course Title	Course Code	Prerequisite(s)	NQF Level	NQF Credits
Human Anatomy & Physiology 1A	HPY110S	None	5	12
Medical Chemistry	CEM110S	None	5	10
Biostatistics and Calculations	BCL110S	None	5	8
Medical Physics	MPH110S	None	5	7
Laboratory Principles 1A	LAP110S	None	5	12
Computer User Skills	CUS411S	None	4	10
English for Academic Purposes	EAP511S	English in Practice, or Language in Practice B, or Module 3 or Exemption	5	14

Semester 2

Human Anatomy and Physiology 1B	HPY120S	Human Anatomy and Physiology 1A	6	12
Molecular Biology	BMB120S	Medical Chemistry 1	6	10
Immunology	IMY120S	Human Anatomy and Physiology 1A	6	12
Biochemistry	BCH120S	Medical Chemistry 1	6	12
Applied Laboratory Principles 1B	ALP120S	Laboratory Principles 1A	6	15

Year 2**Semester 3**

Medical Microbiology 1	MMB210S	Human Anatomy and Physiology 1A & 1B	6	15
Haematology 1	HAM210S	Immunology	6	12
Clinical Chemistry 1	CLC210S	Biochemistry	6	12
Cell Biology	CEB210S	Human Anatomy and Physiology 1A & 1B	6	10

Semester 4

Medical Microbiology 2	MMB220S	Medical Microbiology 1	7	20
Haematology 2	HAM220S	Haematology 1	7	15
Biology of Diseases	BOD220S	Cell Biology	7	10
Clinical Chemistry 2	CLC220S	Clinical Chemistry 1	7	15

Year 3

Semester 5

Medical Microbiology 3	MMB310S	Medical Microbiology 2	7	15
Haematology 3	HAM310S	Haematology 2	7	15
Clinical Chemistry 3	CLC310S	Clinical Chemistry 2	7	15
Research Methodology A	RES310S	BioStatistics and Calculations	7	15
Medical Laboratory Management A	LAM320S	Applied Laboratory Principles 1B	7	10
Molecular Diagnostics	MOD310S	Clinical Chemistry 2	7	15

Semester 6

Experiential Learning A	BMT320S	All semester five courses	8	60
-------------------------	---------	---------------------------	---	----

Year 4

Semester 7

Experiential Learning B	BMT410S	Experiential Learning A	8	60
-------------------------	---------	-------------------------	---	----

Semester 8

Integrated Clinical Pathology	ICP420S	Experiential Learning A & B	8	27
Research Project	RSP420S	Research Methodology A	8	30
Medical Laboratory Management B	LAM420S	Medical Laboratory Management A	8	10

Progression Rule: Students must complete and have passed all clinical courses before they will be allowed to register for experiential learning.

Candidates who meet admission requirements will undergo a selection process, including an admission test, limited space is available in the programme and meeting admission requirements does not guarantee placement.

BACHELOR OF EMERGENCY MEDICAL CARE**07BOMC****Description**

The Bachelor of Emergency Medical Care is a three-year full-time programme that is registered at a NQF level 7. Designed to provide students with a systematic and coherent introduction to the broad knowledge, principles, concepts and problem-solving techniques of emergency medical care. The programme will enable students to acquire cognitive/intellectual skills, practical/clinical skills, and key transferable skills for a career in the profession of emergency medical care. Graduates of this programme will be able to competently integrate and apply theoretical principles and practical clinical procedures and techniques to independently provide emergency medical care to injured and/or ill patients in urban, peri-urban and rural areas within the scope of practice stipulated by the Health Professions Council of Namibia (HPCNA).

The programme allows for an early exit with a Diploma in Emergency Medical Care after successful completion of the second year of study. Students who exit with a Diploma will be able to find employment in industry as mid-level emergency care practitioners and will be eligible to register with the HPCNA as Emergency Care Technicians (ECT's). Successful completion of the Bachelor of Emergency Medical Care degree will enable registration with the HPCNA as an Advanced Life Support (ALS) Practitioner, while graduates will be able to find employment in more senior positions, typically as ALS practitioners (Paramedics).

Admission Requirements

Candidates may be considered for admission to this programme, if they meet the General Admission Requirements of the Namibia University of Science and Technology (GI2.1 in Part 1 of the NUST Yearbook), and comply with the additional requirements below:

- a minimum E symbol in English as a Second Language at NSSC Ordinary Level or a 4 on Higher Level;
- a minimum D symbol in Mathematics and Biology, or Physical Science, at NSSC Ordinary Level or 4 on Higher Level.

Mature age candidates will be considered provided they meet the requirements and pass the mature age entrance examinations of the Namibia University of Science and Technology (GI2.2 in Part 1 of the Yearbook). Students are required to obtain a minimum final score of at least **60 %** in the language proficiency test and **50 %** in the mathematics proficiency test.

The final selection of candidates to this programme shall follow a three-step process as indicated below:

- Step 1:** Applicants, who meet or surpass the minimum admission requirements, as stated above, will be shortlisted based on academic merit. Such candidates shall receive an invitation and information package for the selection assessments of the second stage (Step Two).
- Step 2:** Candidates are to be assessed in terms of their physical, medical fitness/abilities and phobias, and will be required to do a short-written placement test as well. Based on the outcome of these assessments, a shortlist shall be compiled and successful candidates will be invited to participate in a selection interview (Step Three).
- Step 3:** Candidates shall undergo an interview by the programme staff after which the final selection for admission shall be made. The results of the Selection Committee are final and no discussion or correspondence will be entered into.

If the final Grade 12 results of candidates, who were selected provisionally, do not meet the minimum requirements, then admission to the programme will be withheld.

Holders of the National Higher Certificate in Emergency Medical Care may be considered for admission to this programme provided they are registered with the Health Professions Council of Namibia as Emergency Care Technicians. These candidates, if admitted, will be granted credits for the following courses:

- Language in Practice (Principles of English Language Use)
- Computer User Skills
- Basic Science
- Pre-hospital Emergency Medical Care I
- Human Anatomy and Physiology
- Clinical Practice I
- Basic Medical Rescue
- Clinical Practice II
- Primary Health Care and HIV/AIDS

Holders of the National Higher Certificate in Emergency Medical Care will not be awarded with the new Diploma in Emergency Care. Emergency Care Technicians (National Higher Certificate) and Critical Care Assistants (CCA's) are eligible to apply for Recognition of Prior Learning (RPL) as established by the programme.

Mode of Delivery

This programme will be delivered on the full-time mode of study in accordance with NUST rules.

Requirements for Qualification Award

The Bachelor of Emergency Medical Care will be awarded to candidates credited with a minimum of 388 NQF credits while the Diploma in Emergency Medical Care (Level 6) will be awarded to candidates credited with a minimum of 259 NQF credits. In addition, students should meet the administrative and financial requirements as set out in Part 1 of the Namibia University of Science and Technology Yearbook.

Progression Rules

Students will only have three opportunities to pass the following courses; Emergency Medical Care I, Clinical Practice I, Emergency Medical Care II, Clinical Practice II, Emergency Medical Care III, and Clinical Practice III; due to the limited number of available sites for clinical placement (Work Integrated Learning), and due to advice in placement of students by the HPCNA, particularly pertaining to the ratio of student to lecturer in all practical classes. This will ensure that students are awarded a fair opportunity to complete the programme successfully whilst adhering to the HPCNA requirements in terms of students to lecturer ratios in theoretical and practical classes.

CURRICULUM

Year 1

Semester 1

Course Title

Principles of English Language in Use
Computer User Skills
Basic Science

Course Code

PLU411S
CUS411S
BSC410S

Prerequisite

None
None
None

Semester 2

English in Practice
Information Competence
Basic Mathematics

EPR511S
ICT521S
ICT521S

Principles of English Language Use
None
None

Year Courses

Emergency Medical Care I
Human Anatomy and Physiology
Primary Health Care and HIV/AIDS
Clinical Practice I

EMC501Y
HAP501Y
HAP501Y
CPR501Y

None
None
None
None

Year 2

Semester 1

English for Academic Purposes
Medical Rescue 1A
Pathophysiology

EAP511S
MRS511S
PPH611S

English in Practice
None
Human Anatomy and Physiology

Semester 2

Medical Law and Ethics
Medical Rescue 1B

MLE512S
MRS521S

None
Medical Rescue 1A

Year Courses

Emergency Medical Care II

Pharmacology

Clinical Practice II

EMC601Y

PHA601Y

CPR601Y

Emergency Medical Care I, Human Anatomy and Physiology, Clinical Practice I
Emergency Medical Care I, Human Anatomy and Physiology
Emergency Medical Care I, Clinical Practice I

Year 3

Semester 1

Contemporary Issues

CIS610S

None

Semester 2

Emergency Medical Service Administration

EMS612S

Emergency Medical Care II

Year Courses

Emergency Medical Care III	EMC701Y	Emergency Medical Care II and Clinical Practice II, Pharmacology
Clinical Practice III	CPR701Y	Emergency Medical Care II, Clinical Practice II, Pharmacology
ICU and Critical Care Transport	ICU701Y	Emergency Medical Care II, Clinical Practice II, Pharmacology

**BACHELOR OF ENVIRONMENTAL HEALTH SCIENCES
(Revised Programme) (Phased in 2017)**

08BOHS

NQF Level: 8

NQF Credits: 517

NQF Qualification ID: Q0310

Description

The Bachelor of Environmental Health Sciences is a professional degree, designed for registration at level 8 on the National Qualifications Framework (NQF). The programme demands a high level of theoretical engagement and intellectual independence and aims to foster deepened, comprehensive and systematic expertise in the major cognate area of learning, i.e. Environmental Health.

The current Bachelor of Environmental Health Sciences programme was reviewed in order to ensure full compliance with the NUST Curriculum Framework and requirements of the NQF. The curriculum review is needed to ensure that students attain all the core competencies to practice in different industries, and are equipped to deal with public health needs in a dynamic health system.

Admission Criteria

Candidates may be admitted to this programme if they meet the General Admission Requirements of the University. In addition, candidates must have a minimum of 15 points in Physical Science, Mathematics and Biology at NSSC (H or O), provided that no symbol must be below C on Ordinary Level.

Articulation Arrangements

The transfer of credits will be dealt with according to the University's rules and regulations on Recognition of Prior Learning. These provide for course by course credits as well as credit transfer by volume under certain academic conditions. Maximum credits that can be granted are 50 % of the credits for a qualification.

Graduates of this programme will under normal circumstances be able to pursue further studies in Environmental Health Sciences, or a related cognate area of learning, at NQF Level 9.

Mode of Delivery

The Bachelor of Environmental Health Sciences will be offered on the full-time mode in accordance with NUST rules and procedures.

Requirements for Qualification Award

The Bachelor of Environmental Health Sciences, designed for registration at NQF level 8, will be awarded to students credited with a minimum of 517 NQF credits. All the courses are compulsory and in addition, students must meet the administrative and financial requirements as spelt out in Part 1 of the NUST Yearbook.

Teaching and Learning Strategies

The requirements of the NQF underline the acquisition of cognitive skills and competencies exceeding the knowledge and understanding of subject specific knowledge items and professional/technical competencies. Thus, the programme focuses on the engagement of students in an interactive learning process in order to provide for the development of generic cognitive and intellectual skills, key transferable skills, and, as the case may be, subject specific and/or professional/technical practical skills. This learning process will be facilitated both in and outside the classroom, requiring specific tasks to be carried out by the student. This facilitation will make use of, inter alia, practical projects, tutorials, case studies, field trips, software demonstration, problem based learning and individual and/or group work. The progress of learning embedded in such tasks will be monitored, recorded and assessed.

Learning activities outside the classroom will include two semesters of Work Integrated Learning at various institutions such as the Ministry of Health, Municipalities, Abattoirs, Namport, Namwater, food processing industries, food storage industries, mining companies, etc., to enable students to apply learnt competencies and conduct research of an applied nature (to be published in a Mini-thesis). The department will identify industry supervisors who will work hand in hand with the department in training and supervising the students learning activities during Work Integrated Learning. The Work Integrated Learning experiences should be documented throughout the placement period, reports on the students' performance will be provided outlining activities covered during WIL. At the end of the attachment, students need to provide a detailed written report that will be presented to a panel of evaluators who will determine the mark to be awarded to the student. This mark contributes towards the final semester mark for the course. External moderators will moderate the portfolios for both semesters. Work Integrated Learning (Part 1) includes Meat Hygiene practical's and Environmental Health Services. Work Integrated Learning (Part 2) includes Environmental Health Services while students are required at the same time to carry out their research activities.

Assessment

Students will be assessed through continuous and summative assessments. These assessments will focus on the achievement of qualification outcomes and take the form of problem solving exercises, individual/group assignments and presentations, case studies, report writing, practical application of skills and competencies, tutorials, practical projects and questioning (tests and/or examinations). The use of validating end of term assessments may be minimised in order to free students' intellectual capacity for

broader cognitive development. Assessment by means of tests and/or examinations will, therefore, be restricted to situations where it is necessary to establish that a previous specific performance can be repeated or a specific skill can be transferred. In accordance with the NUST policy on diversified continuous assessment, each course will have a minimum of six assessment events. Courses that are assessed using a combination of continuous assessment and a final end-of-term examination must have at least three assessments. All courses will be assessed using a combination of continuous assessment and an end-of-semester examination in the ratio 60 % (continuous assessment) and 40 % (examination).

Assessment of the Work Integrated Learning components will be dealt with by means of close cooperation between industry assessors and NUST academics by means of a work manual in which students have to report on their activities in the work place and signed off by the assessors. The mini-thesis will be assessed in accordance with the University's rules for studies at postgraduate level.

Transition Arrangements

The revised Bachelor of Environmental Health Sciences (new curriculum) will be implemented at all levels (1st, 2nd, 3rd and 4th year) in 2017, thus the 2016 first, second and third year cohorts will all transition to the revised programme (new curriculum). Courses will only be offered based on the new/revised syllabi from 2017 onwards. Students who are admitted into the examination in 2017 for courses on the old curriculum will be granted two opportunities to pass such courses. Students who fail any of the courses on the old curriculum will be required to repeat such courses based on syllabi of new/revised corresponding courses (please refer to table 1 below, for detailed information on the new/revised corresponding courses to be done if courses on the old curriculum are failed). These will be done in consultation with the Registrar.

Students who are registered in 2016 for the final (4th year) of the programme will be allowed to continue with the existing (old) curriculum until 2017. The old curriculum will be completely phased out by the end of 2017 after which students in this category must automatically switch to the revised programme (new curriculum) and fulfil all requirements based on the new curriculum.

Table 1: Corresponding Courses (if Failed) – this is not a credit table

Bachelor of Environmental Health Sciences (Old Courses)		Bachelor of Environmental Health Sciences (Revised/New Corresponding Courses)	
Course Code	Course	Course Code	Course
HSP511S	Health Science Physics	HSP511S	Health Science Physics
HSC511S	Health Science Chemistry	HSC511S	Health Science Chemistry
HSS511S	Health Science Statistics	HSS511S	Health Science Statistics
AAP511S	Anatomy and Physiology	AAP511S	Anatomy and Physiology
LIP411S	Language in Practice	PLU411S	Principles of English Language Use
CUS411S	Computer User Skills	CUS411S	Computer User Skills
SSS512S	Social Studies	CHP521S	Community Health Promotion
MAP512S	Microbiology and Parasitology	MAP512S	Microbiology and Parasitology
BCC512S	Building Construction and Control	HAH521S	Housing and Health
WAS512S	Water and Sanitation	WAS512S	Water and Sanitation
ICT521S	Information Competence	ICT521S	Information Competence
EPR511S	English in Practice	EPR511S	English in Practice
OHS611S	Occupational Health and Safety 2A	OHS611S	Occupational Health and Safety 2A
FMH611S	Food and Meat Hygiene 2A	FMH611S	Food and Meat Hygiene 2A
EPD611S	Epidemiology 2A	EPD611S	Epidemiology 2A
PHL611S	Public Health Legislation 2A	PHL611S	Public Health Legislation 2A
WSM611S	Waste Management	WSM611S	Waste Management
EAP511S	English for Academic Purposes	EAP511S	English for Academic Purposes
OHS612S	Occupational Health and Safety 2B	OHS612S	Occupational Health and Safety 2B
FMH612S	Food and Meat Hygiene 2B	FMH612S	Food and Meat Hygiene 2B
EPD612S	Epidemiology 2B	EPD612S	Epidemiology 2B
PHL612S	Public Health Legislation 2B	PHL612S	Public Health Legislation 2B
APN612S	Air Pollution and Noise	APN612S	Air Pollution and Noise
OHS711S	Occupational Health and Safety 3	OHS711S	Occupational Health and Safety 3
FMH711S	Food and Meat Hygiene 3	FMH711S	Food and Meat Hygiene 3
EPD711S	Epidemiology 3	EPD711S	Epidemiology 3
HMP711S	Health Management Practice 3	HMP711S	Health Management Practice 3
EPP711S	Environmental Pollution Procedures	EPS711S	Environmental Pollution and Safety
CIS610S	Contemporary Issues	CIS610S	Contemporary Issues
EWL712S	Work Integrated Learning (Part 1)	EWL712S	Work Integrated Learning (Part 1)

OHS811S	Occupational Health & Safety 4	OHS811S	Occupational Health & Safety 4
FMH811S	Food and Meat Hygiene 4	FMH811S	Food and Meat Hygiene 4
RMA811S	Research Methodology	RMA811S	Research Methodology
HMP811S	Health Management Practice 4	HMP811S	Health Management Practice 4
EQM811S	Environmental Quality Management	EQM811S	Environmental Quality Management
EWL812S	Work Integrated Learning (Part 2)	EWL812S	Work Integrated Learning (Part 2)
EMT812S	Mini-Thesis	EMT812S	Mini-Thesis

CURRICULUM

Year 1

Semester 1

Course Title	Course Code	Prerequisite	NQF Levels	NQF Credits
Principles of English Language Use	PLU411S	None		
Computer User Skills	CUS411S	None	4	10
Health Science Physics	HSP511S	None	5	10
Health Science Chemistry	HSC511S	None	5	10
Health Science Statistics	HSS511S	None	5	10
Anatomy and Physiology	AAP511S	None		

Semester 2

Information Competence	ICT521S	None		
English in Practice	EPR511S	Principles of English Language Use		
Water and Sanitation	WAS512S	None	5	12
Microbiology and Parasitology	MAP512S	None	5	12
Community Health Promotion	CHP521S	None	5	12
Housing and Health	HAH521S	None	5	12

Year 2

Semester 3

English for Academic Purposes	EAP511S	English in Practice		
Waste Management	WSM611S	Water and Sanitation	6	12
Occupational Health and Safety 2A	OHS611S	Health Science Physics	6	12
Food and Meat Hygiene 2A	FMH611S	Microbiology and Parasitology Health Science Chemistry	6	12
Epidemiology 2A	EPD611S	Health Science Statistics Anatomy and Physiology	6	12
Public Health Legislation 2A	PHL611S	Community Health Promotion	6	12

Semester 4

Occupational Health and Safety 2B	OHS612S	Occupational Health and Safety 2A	6	12
Food and Meat Hygiene 2B	FMH612S	Food and Meat Hygiene 2A	6	12
Epidemiology 2B	EPD612S	Epidemiology 2A	6	12
Public Health Legislation 2B	PHL612S	Public Health Legislation 2A	6	12
Air Pollution and Noise	APN612S	Waste Management	6	12

Year 3

Semester 5

Contemporary Issues	CIS610S	None	7	13
Occupational Health and Safety 3	OHS711S	Occupational Health and Safety 2B	7	13
Food and Meat Hygiene 3	FMH711S	Food and Meat Hygiene 2B	7	13
Epidemiology 3	EPD711S	Epidemiology 2B	7	13
Health Management Practice 3	HMP711S	Public Health Legislation 2B	7	13
Environmental Pollution and Safety	EPS711S	Air Pollution and Noise	7	13

Semester 6

Work Integrated Learning (Part 1)	EWL712S	All courses up to Semester 5	7	60
-----------------------------------	---------	------------------------------	---	----

Year 4**Semester 7**

Occupational Health and Safety 4	OHS811S	Occupational Health and Safety 3	8	14
Food and Meat Hygiene 4	FMH811S	Food and Meat Hygiene 3	8	14
Research Methodology	RMA811S	Epidemiology 3	8	14
Health Management Practice 4	HMP811S	Health Management Practice 3	8	14
Environmental Quality Management	EQM811S	Environmental Pollution and Safety	8	14

Semester 8

Work Integrated Learning (Part 2)	EWL812S	All courses up to Semester 7	8	36
Mini-Thesis	EMT812S	Research Methodology	8	30

**BACHELOR OF SCIENCE IN HEALTH INFORMATION SYSTEMS MANAGEMENT
(Phased in 2016)**

07BHIS

NQF Level: 7

NQF Credits: 374

NQF Qualification ID: Q0891

Description

The Bachelor of Science in Health Information Systems Management is designed for registration at Level 7 on the NQF.

Admission Requirements

Candidates may be admitted to this programme if they meet the General Admission Requirements of the University (GI2.1 in Part 1 of the NUST Yearbook). In addition, candidates must have a minimum of 15 points in Physical Science, Mathematics and Biology at NSSC (H or O), provided that no symbol must be below D on Ordinary Level.

Articulation Arrangements

The transfer of credits will be dealt with according to the University's rules and regulations on Recognition of Prior Learning. These provide for course by course credits as well as credit transfer by volume under certain academic conditions. Maximum credits that can be granted are 50 % of the credits for a qualification.

Graduates of this programme will under normal circumstances be able to pursue further studies in health information management, health informatics, public health or a related cognate area of learning, at NQF Level 8.

Mode of Delivery

The Bachelor of Sciences in Health Information Systems Management will be offered on a full-time mode of study. Permission will be sought in the future subject to the approval of the Executive Committee, to deliver the programme on flexible modes such as Block release, distance learning, and E-learning in accordance with University's rules and procedures.

Teaching and Learning Strategies

The requirements of the NQF underline the acquisition of cognitive skills and competencies exceeding the knowledge and understanding of subject specific knowledge items and professional/technical competencies. Thus, the programme focuses on the engagement of students in an interactive learning process in order to provide for the development of generic cognitive and intellectual skills, key transferable skills, and, as the case may be, subject specific and/or professional/technical practical skills.

This learning process will be facilitated both in and outside the classroom, requiring specific tasks to be carried out by the student. This facilitation will make use of, *inter alia*, practical projects, tutorials, case studies, field trips, software demonstration, problem based learning and individual and/or group work. The progress of learning embedded in such tasks will be monitored, recorded and assessed.

Learning activities outside the classroom will include two semesters of Work Integrated Learning at various institutions such as the Ministry of Health, Hospitals, Clinics, Health insurance companies, Health care settings in private sector, Telecom Namibia, HIS consulting companies, etc. to enable students to apply learnt competencies. Students will be required to sign an agreement form provided by the department in collaboration with the organisation offering the placement. The department will identify and appoint an industry supervisor who will work hand in hand with the department. The agreement will cover all the departments that the student should cover. The Work Integrated Learning experiences should be documented throughout the placement period, reports on the students' performance will be provided outlining activities covered during WIL. At the end of the attachment, students need to provide a detailed written report that will be presented to a panel of evaluators who will determine the mark to be awarded to the student. This mark contributes towards the final semester mark for the course. External moderators are moderating the portfolios for both semesters. Work Integrated Learning (Part 1) includes Health Information Management in health care delivery and Database Management & Analytics for HISM professionals' lab. Work Integrated Learning (Part 2) includes Health Information Management Services while students are required at the same time to carry out their research activities.

Assessment Strategies

Students will be assessed through continuous and summative assessment. These assessments will focus on the achievement of qualification outcomes and take the form of problem solving exercises, individual/group assignments and presentations, case studies, report writing, practical application of skills and competencies, tutorials, practical projects and questioning (tests and/or examinations). The use of validating end of term assessments may be minimised in order to free students' intellectual capacity for broader cognitive development. Assessment by means of tests and/or examinations will, therefore, be restricted to situations where it is necessary to establish that a previous specific performance can be repeated or a specific skill can be transferred. In accordance with the University's policy on diversified continuous assessment, each course will have a minimum of six assessment events. Courses that are assessed using a combination of continuous assessment and a final end-of-term examination must have at least three assessments.

All courses will be assessed using a combination of continuous assessment and an end-of-semester examination in the ratio 60 % (continuous assessment) and 40 % (examination).

Assessment of the Work Integrated Learning components will be dealt with by means of close cooperation between industry assessors and NUST academics by means of a work manual in which students have to report on their activities in the work place and signed off by the assessors.

CURRICULUM

Year 1

Semester 1

Course Code	Course Title	Prerequisite	NQF Level	NQF Credits
PLU411S	Principles of English Language Use	None	4	NCB
CUS411S	Computer User Skills	None	4	10
HSP511S	Health Sciences Physics	None	5	10
HSC511S	Health Sciences Chemistry	None	5	10
HSS511S	Health Sciences Statistics	None	5	10
AAP511S	Anatomy and Physiology	None	5	12

Semester 2

ICT521S	Information Competence	None	5	10
EPR511S	English in Practice	Principles of English Language Use or Language in Practice A	5	NCB
CHP521S	Community Health Promotion	None	5	12
BPP521S	Basic Pathophysiology	None	5	12
BME521S	Biomedical Ethics	None	5	12
IHI521S	Introduction to Health Informatics	None	5	12

Year 2

Semester 3

EAP511S	English for Academic Purposes	English in Practice or Language in Practice B	5	14
HIT611S	Health Information Technology	Introduction to Health Informatics	6	12
EPD611S	Epidemiology 2A	Health Statistics; Anatomy and Physiology	6	12
PHS611S	Policy in Health Information Systems	Biomedical Ethics	6	12
MTD611S	Medical Terminologies and Disease Nomenclature	Basic Pathophysiology	6	12

Semester 4

EHR621S	Electronic Health Records	Introduction to Health Informatics	6	12
ICD621S	International Classification of Disease	Medical Terminologies and Disease Nomenclature	6	12
EPD612S	Epidemiology 2B	Epidemiology 2A	6	12
HIM621S	Health Information Management	Health Information Technology	6	12

Year 3

Semester 5

EPD711S	Epidemiology 3	Epidemiology 2B	7	13
PHM711S	Principles of Health Management	None	7	13
CIS610S	Contemporary Issues	None	6	12
WIH711S	Work Integrated Learning (Part 1)	All courses up to Semester 4	7	32

Semester 6

PHP721S	Public Health Practice	Epidemiology 3	7	13
WIH721S	Work Integrated Learning (Part 2)	All courses up to Semester 5	7	32
Plus TWO of the following elective courses:				
BSD721S	Biostatistics and Demography	None	7	13
LHM721S	Legislations of Health Information Management	None	7	13
FMS721S	Financial Management in Health Services	None	7	13

Description

The Bachelor of Human Nutrition is designed to provide students with a comprehensive knowledge of human nutrition, the related biosciences and their application to the maintenance of human health in public health domains as well as the prevention and management of disease. The programme enables students to apply their knowledge of nutrition and holistic approaches to contribute to the alleviation of malnutrition and nutrition-related morbidity and mortality in Namibia. Students will be capacitated with relevant knowledge and skills in foundational cognate areas including food chemistry, human anatomy and physiology, microbiology, biochemistry, food security, etc., and be able to apply this knowledge in understanding the role of diet in health maintenance and illness prevention. The programme, further aims to produce graduates who can deliver quality nutritional services within a wide range of settings including public health, health education or health promotion, the food industry, and other areas of nutrition.

On completion, graduates who intend to practice as Nutritionists will be eligible to register with the Health Professions Council (HPCNA) of Namibia. After registration with HPCNA, they may be able to find employment in both public and private sector, municipalities, research institutions, other health related institutions, as well as teaching/training institutions.

Criteria for Admission

Candidates may be admitted to this programme if they meet the General Admission Requirements of NUST (G12.1 in Part 1 of the NUST Yearbook). In addition, candidates must have a minimum of 15 points in Physical Science, Mathematics and Biology at NSSC (H or O), provided that no symbol must be below C on Ordinary Level.

Mature age candidates will be considered provided they meet the requirements and pass the mature age entrance examinations of NUST (G12.2 in the Prospectus/Year Book) – with a minimum of 50 % in both English and Mathematics.

Articulation Arrangements

The transfer of credits will be dealt with according to NUST’s rules and regulations on Recognition of Prior Learning. These provide for course by course credits as well as credit transfer by volume under certain academic conditions. Maximum credits that can be granted are 50 % of the credits for a qualification.

Graduates of this programme will under normal circumstances be able to pursue further studies in Human Nutrition, or a related cognate area of learning, at NQF Level 9.

Mode of Delivery

The Bachelor of Human Nutrition will be offered on a full-time mode of study. Flexible modes such as Block release, Distance learning and E-learning could be used to deliver the programme in the future in accordance with NUST rules and procedures.

Requirements for Qualification Award

The Bachelor of Human Nutrition will be awarded to students credited with a minimum of 482 NQF credits. In addition, students must meet the administrative and financial requirements as spelt out in Part 1 of the NUST Yearbook.

Teaching and Learning Strategies

The requirements of the NQF underline the acquisition of cognitive skills and competencies exceeding the knowledge and understanding of subject specific knowledge items and professional/technical competencies. Thus, the programme focuses on the engagement of students in an interactive learning process in order to provide for the development of generic cognitive and intellectual skills, key transferable skills, and, as the case may be, subject specific and/or professional/technical practical skills.

This learning process will be facilitated both in and outside the classroom, using a blended mode with e-learning and other technologies, requiring specific tasks to be carried out by the student. This facilitation will make use of, *inter alia*, practical projects, tutorials, case studies, field trips, software demonstration, problem based learning and individual and/or group work. The progress of learning embedded in such tasks will be monitored, recorded and assessed.

Learning activities outside the classroom will include one semester of WIL at various institutions such as the Ministry of Health and Social Sciences, Hospitals, Clinics, Health care settings in private sectors, Food service industry, Non-Governmental Organisations, Municipalities, etc. to enable students to apply learnt competencies. Students will be required to sign an agreement form provided by the department in collaboration with the organisation offering the placement. The department will identify an industry supervisor who will work hand in hand with the department. The WIL experiences should be documented throughout the placement period, reports on the students’ performance will be provided outlining activities covered during WIL. At the end of the attachment, students need to provide a detailed written report that will be presented to a panel of evaluators who will determine the mark to be awarded to the student. This mark contributes towards the final semester mark for the course. External moderators will moderate the submitted WIL portfolios. WIL includes Clinical nutrition, Food service management and Community nutrition.

Assessment Strategies

Students will be assessed through continuous and summative assessment. These assessments will focus on the achievement of qualification outcomes and take the form of problem solving exercises, individual/group assignments and presentations, case studies, report writing, practical application of skills and competencies, tutorials, practical projects and questioning (tests and/or examinations). Assessment by means of tests and/or examinations will be used in situations where it is necessary to establish that a previous specific performance can be repeated or a specific skill can be transferred. In accordance with NUST's policy on diversified continuous assessment, each course will have a minimum of four assessment events. Courses that are assessed using a combination of continuous assessment and a final end-of-term examination must have at least three assessments.

All courses will be assessed using a combination of continuous assessment and an end-of-semester examination in the ratio 60 % (continuous assessment) and 40 % (examination).

Assessment of the WIL components will be dealt with by means of close cooperation between industry assessors and NUST academics by means of a work manual in which students have to report on their activities in the work place and signed off by the assessors.

Transition Arrangements

This is a new programme which does not replace any existing programme(s). Transition arrangements are, therefore, not applicable.

CURRICULUM

Year 1

Semester 1

Course Code	Course Title	Prerequisite	NQF Level	NQF Credit
PLU411S	Principles of English Language Use	None		
CUS411S	Computer User Skills	None		
HSP511S	Health Sciences Physics	None	5	10
HSC511S	Health Sciences Chemistry	None	5	10
HSS511S	Health Sciences Statistics	None	5	10
AAP511S	Anatomy and Physiology	None	5	12

Semester 2

ICT521S	Information Competence	None		
EPR511S	English in Practice	Principles of English Language Use		
CHP521S	Community Health Promotion	None	5	12
IBC521S	Introduction to Biochemistry	Health Science Chemistry	5	10
IFN521S	Introduction to Foods, Nutrition and Health	None	5	10
GEP521S	Gastro-intestinal and Endocrine Physiology	None	5	10

Year 2

Semester 3

EAP511S	English for Academic Purposes	English in Practice or Language in Practice B	6	12
MIB611S	Microbiology	None	6	12
FSN611S	Food Security and Nutrition	None		
EPD611S	Epidemiology 2A	Health Statistics and Anatomy and Physiology	6	12
NTL611S	Nutrition through the Life Cycle	Introduction to Foods, Nutrition and Health	6	12

Semester 4

FCH621S	Food Chemistry	Introduction to Biochemistry	6	12
EPD612S	Epidemiology 2B	Epidemiology 2A	6	12
MCN621S	Maternal and Early Childhood Nutrition	Nutrition through the Life Cycle	6	12
FCA621S	Food Composition and Analysis	Introduction to Biochemistry	6	12
FSS621S	Food Service Systems	None	6	12

Year 3

Semester 5

CIS610S	Contemporary Issues	None	7	13
EPD711S	Epidemiology 3	Epidemiology 2B	7	13
PHM711S	Principles of Health Management	None	7	13
HNT711S	Human Nutrition 1	None	7	13
PHC711S	Principles of Primary Health Care Nutrition	None	7	13

Semester 6

FPC721S	Food Processing and Preservation	None	7	14
HTN721S	Human Nutrition 2	Human Nutrition 1	7	14
NNA721S	Nutrition Anthropology	None	7	14
RMD821S	Research Methodology	Epidemiology 3	8	14

Year 4

Semester 7

CAN811S	Computer Applications in Nutrition	None	8	14
NIE811S	Nutrition in Emergencies	None	8	14
CNN811S	Community Nutrition	None	8	14
PCN811S	Primary Care Nutrition for HIV/AIDS and Communicable Diseases	None	8	14
NCA811S	Nutraceuticals and Alternative Nutritional Remedies	Food Chemistry	8	14

Semester 8

MTN821S	Mini-thesis	Research Methodology	8	30
WLN821S	Work Integrated Learning	All courses up to Semester 7	8	36

DEPARTMENT OF MATHEMATICS AND STATISTICS**Code 51****QUALIFICATIONS OFFERED**

Bachelor of Science in Applied Mathematics and Statistics (Revised – Phasing in from 2015)
 Bachelor of Science in Applied Mathematics and Statistics (Phasing out from 2015)

07BAMS
 35BAMS

**BACHELOR OF SCIENCE IN APPLIED MATHEMATICS AND STATISTICS
 (Revised Programme) (Phasing in from 2015)**

07BAMS**NQF Level: 7****NQF Credits: 414****NQF Qualification ID: Q0724****Description**

The Bachelor of Science in Applied Mathematics and Statistics provides a systematic and coherent introduction to the knowledge, principles, concepts, data, theories and problem-solving techniques of the Applied Mathematics and Applied Statistics discipline. The programme will enable students to acquire cognitive/intellectual skills, practical skills and key transferable skills and to apply these skills in solving Applied Mathematics and Statistics problems facing the public and private sectors, as well as the overall economy.

Admission Requirements

In addition to the general admission requirements of the University, a candidate should have obtained a minimum B symbol in NSSC Mathematics or its equivalent. Candidates that obtained a C symbol in Mathematics will be required to sit for an entrance test in Mathematics.

Candidates who left formal school eight (8) or more years earlier will be considered for admission under Rule GI2.3 in the NUST General Information and Regulations Yearbook.

Modes of Study

The programme will run in the full-time and part-time modes.

CURRICULUM**Year 1****Semester 1**

Course Title	Course Code	Prerequisite(s)	NQF Level	NQF Credits
Sets, Algebra and Trigonometry	SAT501S	None	5	12
Mathematical Structures	MAS501S	None	5	12
Introduction to Applied Statistics	IAS501S	None	5	12
Probability Theory 1	PBT501S	None	5	12
Computer User Skills	CUS411S	None	4	10
Principles of English Language Use	PLU411S	None	4	NCB

Semester 2

Calculus 1	CLS502S	Sets, Algebra & Trig	5	12
Linear Algebra 1	LIA502S	Sets, Algebra & Trig	5	12
Financial Mathematics 1	FIM502S	None	5	12
Statistical Inference 1	SIN502S	None	5	12
English in Practice	EPR511S	Principles of English Language Use	5	NCB
Basic Science	BSC410S	None	4	8

Year 2**Semester 3**

Statistical Inference 2	SIN601S	Statistical Inference 1	6	12
Calculus 2	CLS601S	Calculus 1	6	12
Linear Algebra 2	LIA601S	Linear Algebra 1	6	12
Financial Mathematics 2	FIM601S	Financial Mathematics 1	6	12
English for Academic Purposes	EAP511S	EPR511S and LIP411S	5	14
Information Competence	ICT521S	None	5	10

Semester 4

Mathematical Programming	MAP602S	Linear Algebra 1	6	12
Applied Mathematical and Statistical Computing	AMS602S	Computer User Skills	6	12
Regression Analysis & ANOVA	RAA602S	Statistical Inference 1	6	12
Probability Theory 2	PBT602S	Probability Theory 1	6	12
Ordinary Differential Equations	ODE602S	Calculus 1	6	12
Demography	DEM602S	None	6	12

Year 3

Semester 5

Real Analysis	RAN701S	Calculus 2	7	12
Numerical Methods 1	NUM701S	Ordinary Differential Equations	7	12
Time Series Analysis	TSA701S	Introduction to Applied Stats	7	12
Survey Methods and Sampling Techniques	SMS701S	Introduction to Applied Stats	7	12
Mathematical Modelling 1	MMO701S	Ordinary Differential Equations	7	12
Work Integrated Learning (WIL)	WIL701S	All courses up to Semester 4	7	12

Semester 6

Mathematical Modelling 2	MMO702S	Mathematical Modelling 1	7	12
Design and Analysis of Experiments	DAE702S	Regression Analysis & ANOVA	7	12
Contemporary Issues	CIS601S	None	6	12
Numerical Methods 2	NUM702S	Numerical Methods 1	7	12
Complex Analysis	CAN702S	Real Analysis	7	12

Plus ONE of the following Elective courses:

Mechanics	MCS702S	Ordinary Differential Equations	7	12
Applied Econometric Modelling	AEM702S	Regression Analysis & ANOVA	7	12

Transitional Arrangements

The Bachelor of Science in Applied Mathematics and Statistics (old curriculum), will be phased out systematically until 2019 with minimal disruption to existing students’ learning progression. The last intake of 1st year students for the out-phasing programme (old curriculum) was in January 2014.

Students who were registered in 2014 for the 1st year of the out-phasing programme (old curriculum), and who failed more than 50 % of the courses at the end of the year, will be required to change their registration to the new programme and will be granted credits on a course-by-course basis in accordance with information in Table 1 below. Students who were registered in 2014 for the 1st year of the out-phasing programme (old curriculum) and who met all requirements to progress to the 2nd year in 2015 may be allowed to transition to the revised programme (new curriculum) but, may lose credits.

The revised Bachelor of Science in Applied Mathematics and Statistics (New curriculum) took effect from January 2015 with the concurrent completion of the 1st and 2nd year (2015) and the implementation of the 3rd year in 2016. Courses will only be offered based on the new/revised syllabi in 2015 (1st and 2nd year) and 2016 (3rd year). Students who are admitted to the examination but fail any of the courses on the old curriculum will only be granted two opportunities to pass such courses in accordance with the NUST general rules. Students who fail any of the courses on the old curriculum will be required to repeat the failed courses based on syllabi of new/revised corresponding courses. Please refer to Table 2, below, for detailed information on the new/revised corresponding courses to be done if courses on the old curriculum are failed.

The deadline for complete phasing out of the Bachelor of Science in Applied Mathematics and Statistics (old curriculum) is 2019 after which students must automatically switch to the new programme and fulfil all requirements based of the new curriculum.

Table 1: Corresponding Courses

Course Code	Bachelor of Sciences in Applied Maths and Stats (Old Courses)	Course Code	Bachelor of Sciences in Applied Maths and Stats (New/Revised Corresponding Courses to be Done, if Failed)
LIA121S	Linear Algebra 1	LIN502S	Linear Algebra 1
FIM121S	Financial Mathematics 1	FIM502S	Financial Mathematics 1
CLS120S	Calculus	CLS502S	Calculus 1
SIN211S	Statistical Inference 1	SIN502S	Statistical Inference 1
CUS411S	Computer User Skills	CUS411S	Computer User Skills
EAP511S	English For Academic Purposes	EAP511S	English For Academic Purposes
LIA211S	Linear Algebra 2	LIA601S	Linear Algebra 2

FIM221S	Financial Mathematics 2	FIM602S	Financial Mathematics 2
DEQ211S	Differential Equations	ODE602S	Ordinary Differential Equations
DMG321S	Demography	DEM602S	Demography
RAN311S	Real Analysis	RAN701S	Real Analysis
NAN311S	Numerical Analysis 1	NUM701S	Numerical Methods 1
NAN321S	Numerical Analysis 2	TSA701S	Numerical Methods 2
CAN311S	Complex Analysis 1	CAN702S	Complex Analysis
MCH321S	Mechanics	MCS702S	Mechanics

Table 2: Corresponding Courses (Please note that this is not a credit table)

Course Code	Bachelor of Sciences in Applied Maths and Stats (Old Courses)	Course Code	Bachelor of Sciences in Applied Maths and Stats (New/Revised Corresponding Courses to be Done, if Failed)
ALT111S	Algebra and Trigonometry	SAT501S	Sets, Algebra and Trigonometry
IMS111S	Introduction to Mathematics Structures	MAS501S	Mathematical Structures
INS111S	Introduction to Statistics	IAS501S	Introduction to Applied Statistics
CLC121S	Calculus	CLS502S	Calculus 1
LIA121S	Linear Algebra 1	LIA502S	Linear Algebra 1
FIM121S	Financial Mathematics 1	FIM502S	Financial Mathematics 1
PBT211S	Probability Theory	PBT501S	Probability Theory 1
DEQ211S	Differential Equations 1	ODE602S	Ordinary Differential Equations
LIA211S	Linear Algebra 2	LIA601S	Linear Algebra 2
SMC211S	Mathematical & Statistical Computing	AMS602S	Applied Mathematical & Statistical Computing
MHP221S	Mathematical Programming 1	MAO602S	Mathematical Programming
RAA221S	Regression Analysis & ANOVA	RAA602S	Regression Analysis & ANOVA
SIN221S	Statistical Inference 1	SIN502S	Statistical Inference 1
MMO221S	Mathematical Modelling 1	MMO701S	Mathematical Modelling 1
RAN311S	Real Analysis	RAN701S	Real Analysis
NAN311S	Numerical Analysis 1	NUM701S	Numerical Analysis 1
CAN311S	Complex Analysis 1	CAN702S	Complex Analysis
SIN311S	Statistical Inference 2	SIN601S	Statistical Inference 2
MMO311S	Mathematical Modelling 2	MMO702S	Mathematical Modelling 2
DMG321S	Demography	DEM602S	Demography
SST321S	Survey Methodology	SMS701S	Survey Methods and Sampling Techniques
FIM221S	Financial Mathematics 2	FIM601S	Financial Mathematics 2
NAN321S	Numerical Analysis 2	NUM702S	Numerical Methods 2
MCH321S	Mechanics	MCS702S	Mechanics

Please Note:

The following courses on the out-phasing programme (old curriculum) do not have corresponding courses on the new curriculum and will be offered until the old curriculum is completely phased out in 2019.

- Official Statistics 1 (OST120S)
- Official Statistics 2 (OST320S)
- Mathematical Programming 2 (MHP311S)

**BACHELOR OF SCIENCE IN APPLIED MATHEMATICS AND STATISTICS
(Phasing out from 2015)**

35BAMS

NQF Level: 7

NQF Credits: 455 (Accounting Option)
461(Economics Option)

NQF Qualification ID: Q0110

Admission Requirements

In addition to the general admission requirements of the University, a candidate should have obtained a minimum B symbol in NSSC Mathematics or its equivalent. Candidates that obtained a C symbol in Mathematics will be required to sit for an entrance test in Mathematics.

Candidates who left formal school eight (8) or more years earlier will be considered for admission under Rule GI2.3 in the NUST General Information and Regulations Yearbook.

Modes of Study

The programme will run in the full-time and part-time modes.

CURRICULUM

Year 1

Semester 1

Course Title	Course Code	Prerequisite(s)	NQF Level	NQF Credits
Algebra and Trigonometry	ALT111S	None	4	12
Introduction to Mathematical Structures	IMS111S	None	4	12
Introduction to Statistics	INS111S	None	4	12
Computer User Skills	CUS411S	None	4	12
English for Academic Purposes	EAP511S	None		
Any one of the following (electives):				
Financial Accounting 101	FAC511S	None	4	12
Principles of Microeconomics	PMI511S	None	5	15

Semester 2

Official Statistics	OST121S	None	5	12
Calculus	CLS121S	Algebra & Trig	5	12
Linear Algebra 1	LIA121S	Algebra & Trig	5	12
Financial Mathematics 1	FIM121S	None	5	12
Applied Programming	APR520S	Computer User Skills	4	8
Professional Writing	PWR611S	English for Academic Purposes or Communication Skills	6	15
Any one of the following (electives):				
Financial Accounting 102	FAC512S	Financial Accounting 1A/101	5	12
Principles of Macroeconomics	PMA512S	None	5	15

Year 2

Semester 3

Probability Theory	PBT211S	Calculus	5	12
Differential Equations	DEQ211S	Calculus	6	12
Linear Algebra 2	LIA211S	Linear Algebra 1	6	12
Mathematical & Statistical Computing	SMC211S	Computer User Skills	5	12
Introduction to Business Management	BMI511S	None	5	12
Professional Communication	PC0611S	Professional Writing	6	15
Any ONE of the following (electives):				
Cost and Management Accounting 101	CMA512S	Financial Accounting 1B/102	5	15
Intermediate Microeconomics	IMI611S	Principles of Microeconomics	6	15

Semester 4

Statistical Inference 1	SIN211S	Probability Theory	5	12
Mathematical Programming 1	MHP221S	Linear Algebra 1	6	12
Financial Mathematics 2	FIM221S	Financial Mathematics 1	6	12
Mathematical Modelling 1	MMO221S	Calculus	6	12
Business Ethics and Leadership	BEL112S	None	6	12
Regression Analysis of ANOVA	RAA221S	Statistical Inference 1 and Linear Algebra 1	6	12

Any ONE of the following (electives):

Cost and Management Accounting 201	CMA611S	Cost and Management Accounting 2A	6	15
Intermediate Microeconomics	IMA612S	Principles of Macroeconomics	6	15

Year 3**Semester 5**

Real Analysis	RAN311S	Calculus	7	12
Numerical Analysis 1	NAN311S	Differential Equations	6	12
Mathematical Programming 2	MHP311S	Math Programming 1	7	12
Mathematical Modelling 2	MMO311S	Mathematical Modelling 1	7	12
Business Operations	BSO221S	None	6	12

Any ONE of the following (electives):

Complex Analysis 1	CAN311S	Co-requisite: Real Analysis	7	12
Statistical Inference 2	SIN221S	Statistical Inference 1	7	12

Semester 6

Demography	DMG321S	None	7	12
Survey Methodology	SST321S	Introduction to Statistics	7	12
Numerical Analysis 2	NAN321S	Numerical Analysis 1	7	12
Business Finance	BFS222S	None	7	12
Mechanics	MCH321S	Differential Equations	5	12

QUALIFICATONS OFFERED

Bachelor of Science

07BOSC

BACHELOR OF SCIENCE

07BOSC

NQF Level: 7

NQF Credits: 370

NQF Qualification ID: Q0723

Description

The Bachelor of Science is a single major degree programme, requiring students to minor in a second subject/cognate area, that aims at providing students with a coherent and systematic introduction to the broad knowledge, theories, principles, concepts and problem-solving techniques in the sub-field of natural sciences. The programme will enable students to acquire cognitive, problem-solving and key transferable skills necessary for addressing a wide range of pressing challenges in relation to Science, Technology, Engineering and Mathematics (STEM) in the current Namibian market and economy. This science degree provides a platform for developing scientific literacy and for building-up essential scientific knowledge and skills for lifelong learning in STEM. Additionally, the programme is designed to enable students to apply knowledge of the natural sciences to real life situations and appreciate the relationship between science and other disciplines. The programme structure facilitates exposure of students to a variety of disciplines, at least initially, but ultimately requiring specialisation in the final year in a major complemented by a component of Work Integrated Learning (WIL).

Admission Requirements

In addition to meeting the University’s General Admission Requirements (GI2.1 in Part 1 of the NUST Yearbook), candidates must have a total of 15 points on the evaluation scale for Physical Science, Mathematics and Biology, in a combination of symbols on NSSC Higher or Ordinary Level or both. No symbol for any one or more of the subjects may be lower than a D on Ordinary Level or a 4 on Higher Level. Candidates must further have obtained at least an E on Ordinary Level for English.

The Head of Department or his/her nominee may admit candidates who do not have the required minimum symbol for one of the above subjects, provided that such candidates have very strong symbols for the other two subjects and that the total point score for the three subjects is not lower than 15. Such candidates may be required to enrol for a bridging course at the discretion of the department.

Candidates may be required to participate in a final selection test and/or interview at the discretion of the Faculty.

Requirements for Qualification Award

In the context of this degree, the major and minor combinations will be limited to the following:

Biology major and Chemistry minor, Biology major and Physics minor, Biology major and Mathematics minor, Chemistry major and Biology minor, Chemistry major and Physics minor, Chemistry major and Mathematics minor, Physics major and Biology minor, Physics major and Chemistry minor, Physics major and Mathematics minor, Mathematics major and Biology minor, Mathematics major and Chemistry minor, Mathematics major and Physics minor.

Transfer Arrangements

Transfer of credits will be dealt with according to the University’s regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50 % of the credits for a qualification.

Special Arrangements

The requirements of the NQF underline the acquisition of cognitive skills and competencies exceeding the knowledge and understanding of subject specific knowledge items and professional/technical competencies. Thus, the qualification focuses on the engagement of students in an interactive learning process in order to provide for the development of generic cognitive and intellectual skills, key transferable skills, and, as the case may be, subject specific and/or professional/technical/ practical skills.

This learning process will be facilitated both in and outside the classroom, requiring specific tasks to be carried out by the student. This facilitation will make use of, classroom lectures, guided practical’s, group and individual assignments, seminars, practical demonstrations, problem-solving workshops, group projects, class discussions, tutorials, review of on-line resources, and field trips (not all methods will be used in the context of each course). The peculiar teaching and learning strategies of each course can be found in the course specifications/syllabi. The qualification will be offered on a full-time mode of study in accordance with the University’s rules and regulations.

This programme also includes Work Integrated Learning (WIL) which integrates work experiences with learning in a way traditional education cannot do.

Special Assessment Arrangements

The assessment of the student's academic performance will be on the basis of employing assessment methodologies and strategies appropriate to the learning outcomes of the applicable course. Students will be assessed using diversified continuous assessment methods only. The assessments will focus on the achievement of qualification outcomes and take the form of problem solving exercises, individual and/or group assignments and presentations, case studies, report and essay writing, application of theories and methods. All courses require a final mark of at least 50 % to pass.

Quality Assurance Requirements

Each course will have one or more examiners and one moderator. Moderators will be identified internally and externally and approved by Senate. The required minimum qualification of the moderator will be at least a Master's degree in a particular major area of study (i.e. Biology, Chemistry, Physics or Mathematics), or the person must be a well-respected expert in the field. Lecturing staff will set and mark tests and/or examinations in accordance with set memorandums. The examinations, memorandums and course outlines will be forwarded to the identified moderators for moderation. This ensures quality and equity of assessments and the qualification as whole. All exit level courses for this programme, i.e. NQF Level 7, will be externally moderated.

Transition Arrangements

This is a new qualification that does not replace any existing qualification(s). Transition arrangements are, therefore, not applicable.

CURRICULUM**Year 1****Semester 1**

Course Code	Course Title	Prerequisites	NQF Level	NQF Credits
PLU411S	Principles of English Language Use	None	4	NCB
CUS411S	Computer User Skills	None	4	10
GNB501S	General Biology 1A	None	5	12
GNC501S	General Chemistry 1A	None	5	12
GNP501S	General Physics 1A	None	5	12
SAT501S	Sets, Algebra and Trigonometry	None	5	12

Semester 2

EPR511S	English in Practice	Principles of English Language Use	5	NCB
ICT521S	Information Competence	None	5	10
GNB502S	General Biology 1B	General Biology 1A	5	12
GNC502S	General Chemistry 1B	General Chemistry 1A	5	12
GNP502S	General Physics 1B	None	5	12
IAS501S	Introduction to Applied Statistics	None	5	12

Year 2**Semester 3**

CLS502S	Calculus/Calculus 1	Sets, Algebra and Trigonometry	5	12
---------	---------------------	--------------------------------	---	----

PLUS two strands depending on intended major and minor

Biology

CEB601S	Cell Biology	General Biology 1A	6	12
EBD601S	Evolution of Biological Diversity	General Biology 1A	6	12

Chemistry

APP601S	Analytical Principles and Practice	General Chemistry 1B	6	12
ORC601S	Organic Chemistry 1	General Chemistry 1B	6	12

Physics

EAM601S	Electricity and Magnetism	General Physics 1A	6	12
TPH601S	Thermal Physics	General Physics 1A	6	12

Mathematics

LIA502S	Linear Algebra 1	Sets, Algebra and Trigonometry	5	12
MAS501S	Mathematical Structures	None	5	12

Semester 4

EAP511S	English for Academic Purposes	English in Practice	5	14
---------	-------------------------------	---------------------	---	----

PLUS two strands depending on intended major and minor

Biology

GEN602S	Genetics	Cell Biology	6	12
PSF602S	Plant Structure and Function	Evolution of Biological Diversity	6	12

Chemistry

PCH602S	Physical Chemistry	General Chemistry 1B and Calculus	6	12
ICH602S	Inorganic Chemistry	General Chemistry 1B	6	12

Physics

ECE602S	Electrical Circuits & Electronics	Electricity & Magnetism	6	12
MPH602S	Modern Physics	General Physics 1B	6	12

Mathematics

ODE602S	Ordinary Differential Equations	Calculus 1	6	12
LIA601S	Linear Algebra 2	Linear Algebra 1	6	12

Compulsory Elective for Biology Major

PBT501S	Probability Theory 1	None	5	12
---------	----------------------	------	---	----

Compulsory Elective for Chemistry, Physics, Mathematics Major

CLS601S	Calculus 2	Calculus 1	6	12
---------	------------	------------	---	----

Year 3

Semester 5

CIS610S	Contemporary Issues	None	6	12
---------	---------------------	------	---	----

PLUS one strand/major (based on programme rules and choices made in previous semesters)

Biology

ECO701S	Ecology	General Biology 1B	7	12
ASF701S	Animal Structure and Function	General Biology 1B	7	12
MIB701S	Microbiology	Evolution of Biological Diversity and Genetics	7	12
MAB701S	Marine Biology 3A	Evolution of Biology Diversity	7	12

Chemistry

OCH701S	Organic Chemistry 2	Organic Chemistry 1	7	12
MSC701S	Molecular Spectroscopy & Chemical Separation Methods	Analytical Principles and Practice	7	12
ACS701S	Applied Colloid and Surface Chemistry	Physical Chemistry	7	12
QCM701S	Quantum Chemistry & Molecular Spectroscopy	Physical Chemistry	7	12

Physics

MMP701S	Mathematical Methods in Physics	None	7	12
EEN701S	Energy & Environment	Thermal Physics and Electricity and Magnetism	7	12
SSP701S	Solid State Physics	Modern Physics	7	12
GPH701S	Geophysics	Electricity and Magnetism and Modern Physics	7	12

Mathematics

MAP602S	Mathematical Programming	Linear Algebra 1	6	12
RAN701S	Real Analysis	Calculus 2	7	12
NUM701S	Numerical Methods 1	Ordinary Differential Equations	7	12
MMO701S	Mathematical Modelling 1	Ordinary Differential Equations	7	12

Semester 6

WIL702S	Work Integrated Learning	All courses up to Semester 4	7	36
---------	--------------------------	------------------------------	---	----

PLUS one strand/major (based on programme rules and choice made in previous semester)

Biology

BIO702S	Biotechnology	Microbiology	7	12
MAB702S	Marine Biology 3B	Marine Biology 3A	7	12

Chemistry

BPP702S	Biochemistry: Biochemical Principles & Practice	Organic Chemistry 2	7	12
ENC702S	Environmental Chemistry	Molecular Spectroscopy and Chemical Separation Methods	7	12

Physics

QPH702S	Quantum Physics	Modern Physics	7	12
BPH702S	Biomedical Physics	Modern Physics	7	12

Mathematics

NUM702S	Numerical Methods 2	Numerical Methods 1	7	12
MMO702S	Mathematical Modelling 2	Mathematical Modelling 1	7	12

POSTGRADUATE PROGRAMMES**DEPARTMENT OF HEALTH SCIENCES****QUALIFICATIONS OFFERED**

Postgraduate Diploma in Health Information Systems Management (Phased in 2016)	08PGHM
Bachelor of Emergency Medical Care Honours (New Programme) (Phasing in 2019)	08BMCH
Master of Health Sciences (Phased in 2017)	09MOHS

**POSTGRADUATE DIPLOMA IN HEALTH INFORMATION SYSTEMS MANAGEMENT
(Phased in 2016)****08PGHM****NQF Level: 8****NQF Credits: 135****NQF Qualification ID: Q0892****Description**

The Postgraduate Diploma in Health Information Systems Management programme is primarily designed to provide students with deeper insight, intellectual and cognitive skills related to their professional field and area of employment and help them to advance their career of choice. This programme will expose students to advanced concepts, theories, tools, and methods of Health Information Systems Management. In the same vein, this programme will enable students to acquire the necessary skills for conducting research, capturing, processing, storing and reporting health data including health information systems and technology. This Postgraduate Diploma is intended for students with a health sciences background who wish to further equip and consolidate their knowledge and understanding on the principles of Health Information Systems Management (HISM).

Admission Criteria

Candidates may be admitted to this programme if they have a Health Sciences Bachelor degree at NQF Level 7 or an equivalent qualification from a recognised institution, with an emphasis in Health Sciences. A three-year tertiary pre-NQF qualification with emphasis in Health Sciences will also be considered.

Articulation Arrangements

The transfer of credits will be dealt with according to the University's regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credits that can be granted are 50 % of the credits for a qualification.

Graduates from this programme will ordinarily be able to pursue further studies in Health Information Systems and Management, or a similar/related cognate area of learning, at NQF Level 9.

Mode of Delivery

The programme will be offered on the part-time mode of study through block-release sessions in accordance with University rules.

Requirements for Qualification Award

The Postgraduate Diploma in Health Information Systems Management will be awarded to students credited with a minimum of 120 NQF credits at NQF Level 8, and who have met the detailed qualification requirements for the programme as set out below. Students are required to do seven compulsory courses (worth 105 credits) and one elective course (worth 15 credits). In addition, students should meet the administrative and financial requirements as spelt out in the Yearbooks of the University.

Teaching and Learning Strategies

The requirements of the NQF underline the acquisition of cognitive skills and competencies exceeding the knowledge and understanding of subject specific knowledge items and professional/technical competencies. Thus, the programme focuses on the engagement of students in an interactive learning process in order to provide for the development of generic cognitive and intellectual skills, key transferable skills, and, as the case may be, subject specific and/or professional/technical practical skills.

This learning process will be facilitated both in and outside the classroom, requiring specific tasks to be carried out by the student. This facilitation will make use of, inter alia, practical projects, tutorials, case studies, field trips, software demonstration, problem based learning and individual and/or group work. The progress of learning embedded in such tasks will be monitored, recorded and assessed.

Assessment Strategies

Students will be assessed through continuous and summative assessment. These assessments will focus on the achievement of qualification outcomes and take the form of problem solving exercises, individual/group assignments and presentations, case studies, report writing, practical application of skills and competencies, tutorials, practical projects and questioning (tests and/or examinations). The use of validating end of term assessments may be minimised in order to free students' intellectual capacity for broader cognitive development. Assessment by means of tests and/or examinations will, therefore, be restricted to situations where

it is necessary to establish that a previous specific performance can be repeated or a specific skill can be transferred. In accordance with NUST policy on diversified continuous assessment, each course will have a minimum of six assessment events. Final Mark of 50 % is required to pass the course.

Transition Arrangements

This is a new programme that does not replace any existing programme(s). Transition arrangements are, therefore, not applicable.

CURRICULUM

Year 1

Semester 1

Course Code	Course Title	Prerequisite	NQF Level	NQF Credits
IMH811S	Information Management and Healthcare Systems	None	8	15
HPP811S	Health Management Principles and Practice	None	8	15
IDC811S	International disease Classification and Coding	None	8	15
AHS811S	Advanced Health Statistics	None	8	15

Semester 2

IST821S	Information Systems and Technology	None	8	15
HLP821S	HISM Laboratory Practices	None	8	15
QMC821S	Quality Management in Health Care	None	8	15

Plus ONE of the following elective courses:

SHM821S	Strategic Health Care Planning and Marketing	None	8	15
FMC821S	Financial Management in Health Care	None	8	15

**BACHELOR OF EMERGENCY MEDICAL CARE HONOURS
(New Programme) (Phasing in 2019)****08BMCH****NQF Level: 8****NQF Credits: 135****NQF Qualification ID: Q1110****Description**

The Bachelor of Emergency Medical Care Honours is a postgraduate degree programme that is designed to create an opportunity for further tertiary education in the emergency medical care field which is aligned with the National Development Plan (NDP4) and the NUST strategic Plan (NSP4). Currently there is only the three-year undergraduate programme that is offered at NUST. The programme aims to equip students with comprehensive and systematic knowledge and expertise in this discipline. The programme will enable students to develop their capacity to conduct supervised research of an applied nature as well as appraise existing or new treatment protocols in to develop implementation strategies within the Namibian context. Furthermore, students will be equipped with the relevant knowledge and skills in disaster management, community health paramedicine and clinical care applicable to the emergency medical care setting.

Admission Criteria

Candidates will be considered for admission to the Bachelor of Emergency Medical Care Honours programme if they have a Bachelor of Emergency Medical Care (Formerly Bachelor of Pre-hospital Emergency Medical Care) at NQF level 7 (with at least 360 NQF credits) from NUST or an equivalent NQF level qualification from a recognised institution or relevant pre-NQF qualification from a recognised institution worth at least 360 credits.

NB: Applicants must also be registered with the HPCNA or equivalent registration body, as a Paramedic (Advanced Life Support Practitioner). Proof of Registration must be attached to the Application form.

Articulation Arrangements

Transfer of credits will be dealt with according to the NUST's regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50% of the total credits for a qualification.

Students who complete the Bachelor of Emergency Medical Care Honours will ordinarily be able to further studies in Emergency Medical Care, Health Sciences, or a related cognate area of learning at NQF level 9.

Mode of Delivery

The Bachelor of Emergency Medical Care Honours will be delivered on a full-time basis with a block release learning and distance learning mode that would be complemented by MyNUST E-Learning.

Requirements for Qualification Award

The Bachelor of Emergency Medical Care Honours will be awarded to candidates credited with a minimum of 120 NQF credits, (all at NQF Level 8). Students are required to complete all compulsory courses (worth 120 credits).

In addition, students should meet the administrative and financial requirements as spelt out in Part 1 of the NUST Yearbook.

Transition Arrangements

This is a new programme which does not replace any existing programme(s). Transition arrangements are, therefore, not applicable.

CURRICULUM**Year 1****Semester 1**

Course Code	Course Title	Prerequisite	NQF Level	NQF Credits
RME810S	Research Methodology	None	8	15
CCT811S	Clinical Care Theory 1	None	8	15
CHP811S	Community Health Paramedicine	None	8	15
DMI811S	Disaster and Mass Incident Management	None	8	15

Semester 2

EMC821S	Mini-Thesis	None	8	30
CCP821S	Clinical Care Practice	None	8	15
CCT821S	Clinical Care Theory 2	None	8	15

**MASTER OF HEALTH SCIENCES
(Phased in 2017)**

09MOHS

NQF Level: 9

NQF Credits: 240

NQF Qualification ID: Q1107

Description

The Master of Health Sciences is a postgraduate degree programme by full thesis at NQF level 9. It aims at developing skilled individuals with the ability to conceptualise, develop and conduct applied research in the field of Health Sciences. The degree is designed for candidates with Health Sciences background who seek to deepen and enhance competencies in specific area of Health Sciences. The programme builds on previously acquired theoretical and practical knowledge at NQF level 8 and other industrial experiences to investigate and develop innovative ideas and products to solve problems in the field of Health Sciences. Hence, it is designed to enhance critical thinking and applied techniques in order to contribute meaningfully to the advancement of innovative and applied research in Health Sciences for the benefit of the society.

Admission Criteria

Candidates may be considered for admission into the Master of Health Sciences if they possess a Bachelor of Environmental Health Sciences, Bachelor of Biomedical Sciences or Bachelor of Emergency Medical Care Honours at NQF Level 8 from the Namibia University of Science and Technology or equivalent qualification from recognised institutions. A four-year tertiary pre-NQF qualification with emphasis in Health Sciences may also be considered. Hence, holders of appropriate qualifications in Health Sciences that meet the requirements will be considered on a case-by-case basis depending on internal capacity.

Articulation Arrangements

Successful completion of the Master of Health Sciences programme will provide access to Doctor of Philosophy (PhD) research in Health Sciences or related cognate area of learning at NQF Level 10.

Mode of Delivery

The programme is by full thesis (full research) and will be offered through the full-time and part-time modes of study in accordance with the University's rules and regulations.

Requirements for Qualification Award

The Master of Health Sciences degree will be awarded to students credited with a minimum of 240 credits (all at NQF Level 9). The thesis will represent the entire body of work to be assessed and must meet the University's requirements as detailed in the rules for postgraduate studies. In addition, students should meet the administrative and financial requirements as spelt out in Part 1 of the University Yearbook. Students will be required to make oral presentations of their research proposals within the first six (6) months of registration. It will be mandatory for students to attend seminars and workshops prescribed by the department and or the supervisor in order to improve the quality of their theses.

Free text, following the qualification title would be utilised to identify the cognate area of research in which students' research topics might focus. A minimum of two years and a maximum period of four years are required to complete the programme, if registered on the full-time mode. A minimum of three years and a maximum period of six years are required to complete the programme, if registered on the part-time mode.

Teaching and Learning Strategies

The teaching and learning strategies are structured in line with the expected learning outcomes at NQF level 9. This is geared towards the acquisition of critical thinking and problem solving skills and competence in applied research in Health Sciences. Hence, students will conduct interactive research work under the guidance of assigned supervisor(s). In general, students will be required to conduct independent research work in accordance with a pre-agreed research plan. Students will be supervised, guided and supported through regular contact sessions using all available means during which study planning, progress and other relevant academic issues/milestones are discussed. Academic support will be provided in accordance with the University rules and procedures for postgraduate studies leading to the award of research degrees.

The strategic learning processes include conduction of an in-depth, thorough and relevant literature review geared towards problem solving and societal relevant research. This is essential so as to align research activities to the strategic plan of the institution and that of the country. Students will be encouraged to attend research seminars, workshops and conferences on the recommendation of the Head of Department (HoD) and or the supervisor. Students shall implement the research plan with specific milestones as agreed and signed by both the student and supervisor and endorsed by the HoD. Review of the signed milestone could occur based on valid circumstances from either party.

Hence, supervisory guidance and learning activities will include research proposal development using approved format together with plagiarism report, fulfilment of research ethics requirements, implementation of research methodology, data acquisition, data presentation and interpretation processes, report writing and others.

Additional academic support will be provided in accordance with the University rules and procedures for postgraduate studies and ethical issues will be ensured in all required cases.

Assessment Strategies

Students are required to submit a research proposal within six months for approval by the Postgraduate Studies Committee and then make oral presentation of the proposal. Attendance of prescribed seminars, workshops and conferences shall be compulsory for all students. Students are required to present work-in-progress every six months during research seminars for progress monitoring and assessment purposes. Students who fail the initial assessment of the research proposal will receive an extension of three months for re-approval.

In compliance with the general requirements of Senate of NUST, students are required to submit a thesis for evaluation, which should comply with international academic standards. The thesis requires students to work and conduct research investigation independently. Students are required to cultivate a professional work ethics to deliver the combination of research, analysis, communication and presentation demanded by their theses. The thesis will be assessed in accordance with the rules for studies at postgraduate level.

Students will present and defend their theses before an appropriately constituted committee in accordance with the rules for postgraduate studies at the University. The thesis will be returned to the student for correction before final binding and archiving. Final mark of the thesis will only be released after all corrections have been effected to the satisfaction of the faculty/supervisor.

Transition Arrangements

This is a new programme and does not replace any existing qualification. Transition arrangements as may be required shall be carried out when the programme is due for revision.

Full time			Part time		
Course Code	Course Title	Prerequisite	Course Code	Course Title	Prerequisite
Year 1					
Semester 1 THS911S	Thesis	None	Semester 1 THS911P	Thesis	None
Semester 2 THS912S	Thesis	None	Semester 2 THS912P	Thesis	None
Year 2					
Semester 3 THS913S	Thesis	None	Semester 3 THS913P	Thesis	None
Semester 4 THS914S	Thesis	None	Semester 4 THS914P	Thesis	None
Year 3					
Semester 5 THS915X	Thesis Extension	None	Semester 5 THS915P		
			Semester 6 THS916P	Thesis	None
Year 4					
			Semester 7 THS917P		
			Semester 8 THS918P	Thesis	None
Year 5					
			Semester 9 THS919X	Thesis Extension	None

DEPARTMENT OF NATURAL AND APPLIED SCIENCES

QUALIFICATIONS OFFERED

Postgraduate Diploma in Applied Radiation Science and Technology (Phased in 2016) 08PGRS
 Bachelor of Science Honours (New Programme) (Phased in 2018) 08BOSH

POSTGRADUATE DIPLOMA IN APPLIED RADIATION SCIENCE AND TECHNOLOGY **08PGRS**
(Phased in 2016)

NQF Level: 8 **NQF Credits: 120** **NQF Qualification ID: Q0890**

Description

The Postgraduate Diploma in Applied Radiation Science and Technology is a postgraduate specialisation qualification that aims at consolidating and deepening the knowledge and expertise in the applied radiation science and technology disciplines, and to develop student’s capacity to conduct supervised research of an applied nature. The programme is purposefully designed to enable students to evaluate and apply theoretical and practical aspects of radiation science and technology in general, in order to serve the current and future needs of the public and private sectors, like the various ministries, institutes and the mining and mineral processing industries.

The Postgraduate Diploma in Applied Radiation Science and Technology is intended for students with knowledge and understanding on nuclear sciences, the principles involved in the interaction of the different kinds of matter. This programme will also focus on and cover commercial applications, of nuclear techniques in the fields of energy, agriculture and water resource management, biology and medicine, environmental and nuclear waste minimisation and nuclear security.

The proposed programme is fully compliant with requirements of the National Qualifications Framework (NQF) and the NUST Curriculum Framework.

Admission Criteria

Candidates will be considered for admission to the Postgraduate Diploma in Applied Radiation Science and Technology programme if they have a Bachelor of Science degree which incorporates physics or chemistry as a major subject. It is strongly recommended that chemistry or physics as a minor subject in the abovementioned Bachelor of Science degree should be at a second year level (NQF Level 6). An equivalent qualification at NQF Level 7 which incorporates one or more of the following disciplines:-biology, biochemistry, geology and mathematics, will be evaluated on an individual basis at the discretion of the department/ Postgraduate Committee for suitability of admission.

Articulation Arrangements

Transfer of credits will be dealt with according to the University’s regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. The maximum credit that can be granted is 50 % of the credits for a qualification. Students may articulate to a related Bachelor Honours degree, would gain credit for relevant courses passed, for credit recognition in the Postgraduate Diploma in Applied Radiation Science.

Conversely, students who successfully completed this programme may utilise these for credits (course-by-course), if wishing ultimately, to articulate to a related Master’s degree at NQF Level 9.

Mode of Delivery

This programme will be offered on the part-time with flexible modes of delivery incorporating methodologies such as face to face lectures, block release courses, e-learning and so forth, in accordance with the University’s rules and regulations. The programme, however, may be offered via both, full- and part-time modes at a later date if required.

Requirements for Qualification Award

The Postgraduate Diploma in Applied Radiation Science and Technology will be awarded to students credited with minimum of 120 NQF credits (all at NQF Level 8). Students are required to complete all compulsory courses (worth 120 credits).

In addition, students should meet the administrative and financial requirements as spelt out in Part 1 of the NUST Yearbook.

CURRICULUM**Year 1****Semester 1**

Course Code	Course Title	Prerequisite	NQF Level	NQF Credits
PRR811S	Principles of Radiation and Radioactivity	None	8	15
ANP811S	Applied Nuclear Physics	None	8	15
ANC811S	Applied Nuclear Chemistry	None	8	15
LPR811S	Laboratory Practices 1	None	8	15

Semester 2

HPR821S	Health Physics and Radiobiology	Applied Nuclear Physics Applied Nuclear Chemistry	8	15
NWM821S	Nuclear Waste Management & the Environment	Applied Nuclear Physics Applied Nuclear Chemistry	8	15
RFN821S	Regulatory Framework & Nuclear Security	Applied Nuclear Physics	8	15
LPR821S	Laboratory Practices 1	Applied Nuclear Physics, Applied Nuclear Chemistry, Laboratory Practices 1	8	15

**BACHELOR OF SCIENCE HONOURS
(New Programme) (Phased in 2018)**

08BOSH

NQF Level: 8

NQF Credits: 135

NQF Qualification ID: Q1064

Description

The Bachelor of Science Honours aims at consolidating and deepening the knowledge and expertise in applied natural science disciplines and to develop student's capacity to conduct supervised research of an applied nature. The programme is purposefully designed to expose students to advanced scientific concepts, theories, tools, and methods. Students will be able to critically evaluate and apply theoretical and practical aspects of natural sciences in general; develop advanced information acquisition and have the skills required to analyse and problem solve a wide range of pressing challenges and needs in relation to science, technology, engineering and Mathematics (STEM) in the current Namibian market and economy.

This programme provides a platform for developing scientific literacy and for increasing essential scientific knowledge and skills for lifelong learning in STEM. Additionally, the programme is designed to enable students to appreciate the relationship between science and other disciplines. Thus, the programme will enable students to demonstrate deepened, comprehensive and systematic scientific knowledge required to effectively communicate research results in written and oral formats.

In following this programme, students will have had the opportunity to develop such skills, in particular relating to communication, interpersonal skills, learning skills, research skills, numeracy, self-management, use of IT and problem-solving and will have been encouraged to further develop and enhance the full set of skills through a variety of opportunities available outside their curriculum.

Criteria for Admission

Candidates will be considered for admission to the Bachelor of Science Honours programme if they have a Bachelor of Science degree (with a major in Biology, or Chemistry or Physics) at NQF Level 7 from NUST. Alternatively, candidates should have an equivalent qualification at NQF level 7 from a recognised institution, worth at least 360 NQF credits, or a pre-NQF Bachelor degree of at least three years duration from a recognised institution with specialisations in Biology, Chemistry or Physics.

NB: Admission into a specialisation will be based on the major undertaken previously at the undergraduate level (NQF Level 7).

Articulation Arrangements

Transfer of credits will be dealt with according to the NUST's regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50 % of the credits for a qualification.

Students who complete the Bachelor of Science Honours programme will be able to pursue further studies in applied natural sciences, or a related cognate area of learning, at NQF level 9.

Mode of Delivery

This programme will be offered on the full-time mode of study in accordance with NUST rules and regulations.

Requirements for Qualification Award

The Bachelor of Science Honours degree will be awarded to students credited with a minimum of 120 NQF credits (all at NQF Level 8). The programme allows for specialisation in Applied Biology; Biotechnology; Applied Chemistry, and Applied Physics, of which students must complete one core compulsory course (worth 15 credits); three strand compulsory courses (worth 45 credits); two strand elective courses (worth 30 credits); as well as a mini-thesis (worth 30 credits). In addition, students must meet the administrative and financial requirements as stipulated in Part 1 of the NUST Yearbook.

NB: A specialisation/strand will be offered subject to the number of students enrolled or demand.

Teaching and Learning Strategies

The requirements of the NQF underline the acquisition of cognitive skills and competencies exceeding the knowledge and understanding of subject specific knowledge items and professional/technical competencies. Thus, the qualification focuses on the engagement of students in an interactive learning process in order to provide for the development of generic cognitive and intellectual skills, key transferable skills, and, as the case may be, subject specific and/or professional/technical/ practical skills.

The learning process will be facilitated both inside and outside the classroom, requiring specific tasks to be carried out by the student. Depending on the context of each course, the facilitation methods will make use of any of the following: classroom lectures; guided laboratory classes and practical demonstrations; group and individual assignments and/or projects; seminars and workshops; directed and independent study involving electronic/online resources, textbooks and other study materials; training and practice in the use of IT and software packages; problem-solving workshops or problem-based learning; class discussions; and tutorials. The progress of learning embedded in such tasks will be monitored, recorded and assessed. The particular teaching and learning strategies of each course can be found in the course specifications/syllabi.

Assessment Strategies

Students will be assessed through continuous and summative assessment. These assessments will focus on the achievement of competencies and take the form of problem solving exercises (both of a practical and written format), individual/group assignments, oral, audio-visual and poster presentations, computer-based assessments, critical analysis of case studies, report writing, practical application of skills and competencies, tutorials, practical projects and questioning (tests and/or examinations), peer and self-assessments and dissertations (mini-thesis). In accordance with NUST policy on diversified continuous assessment, each course will have a minimum of six assessment events. Courses that are assessed using a combination of continuous assessment and a final end-of- semester examination must have at least three assessments. In order to be admitted to the final examination in any course, a minimum semester mark of 40 % has to be obtained. This mark is determined by continuous assessment (CA) of a student's achievement by means of tests and/or assignments/seminars/practicals/tutorials. The weighting of the CA types will be assessed in accordance with stipulations in the syllabus of each course.

Where a student misses a continuous assessment or scores below 40 % in the overall continuous assessment, the following rule will apply:

A student can only supplement and/or resubmit a maximum of ONE continuous assessment. Any supplementary continuous assessment will be written at the end of the semester, before the examination component.

The semester mark and the exam mark will be used in a 60:40 ratio, respectively, to determine the Final Mark. A student will have to obtain a minimum average of 50 % as final mark to pass a course, subject to a sub-minimum of 40 % in the examination mark.

The Mini-thesis will be assessed in accordance with NUST's rules for studies at postgraduate level.

Quality Assurance Requirements

Each course (please refer to the Detailed Qualification Requirements) will have one or more examiner and one moderator. Moderators will be identified both internally and externally. The required minimum qualification of the moderator should be a Master degree in a related field of study or the person must be a well-respected expert in the field. Lecturing staff will set and mark tests and/or examinations which will, together with relevant study material of that particular course and other material containing course learning outcomes in the context of the qualification learning outcomes, be forwarded to the moderator for moderation purposes, therefore, ensuring quality of the assessment and the qualification as a whole. Courses at this NQF Level 8 will be externally moderated. Moderation of the mini-thesis will be done in accordance with NUST rules for studies at postgraduate level.

Transition Arrangements

This is a new programme/qualification that does not replace any existing programme/ qualification(s). Transition arrangements are, therefore, not applicable.

CURRICULUM

Year 1

Semester 1

Course Code	Course Title	Prerequisite	NQF Level	NQF Credits
RME810S	Research Methodology	None	8	15
Plus ONE of the following strands compulsory depending on specialisation:				
Applied Biology Strand:				
EBM811S	Environmental Biology and Aquatic Ecosystem Management	None	8	15
MRT811S	Methods in Recombinant DNA Technology	None	8	15
MSP811S	Microbial Systematics and Processes	None		
Biotechnology Strand:				
BIO811S	Bioinformatics	None	8	15
MRT811S	Methods in Recombinant DNA Technology	None	8	15
PAB811S	Plant and Animal Biotechnology	None	8	15
Applied Chemistry Strand:				
AAC811S	Advanced Analytical Methods and Chemometrics	None	8	15
BBC811S	Bioinorganic and Biophysical Chemistry	None	8	15
AOC811S	Advanced Organic Chemistry	None	8	15
Applied Physics Strand:				
ENP811S	Environmental Physics	None	8	15
AGE811S	Advanced Geophysics	None	8	15
ISP811S	Instrumentation Physics	None	8	15

Semester 2

MSH821S	Mini-thesis	Research Methodology	8	30
Plus TWO of the following Strand Elective courses for Strand/Specialisation in Applied Biology (based on demand):				
AMB821S	Advanced Microbiology	None	8	15
BPM821S	Biosynthetic Pathways and Molecular Biology	None	8	15
ENS821S	Entrepreneurship	None	8	15
Plus TWO of the following Strand Elective courses for Strand/Specialisation in Biotechnology (based on demand):				
EIM821S	Environmental, Industrial and Medical Biotechnology	None	8	15
BPM821S	Biosynthetic Pathways and Molecular Biology	None	8	15
ENS821S	Entrepreneurship	None	8	15
Plus TWO of the following Strand Elective courses for Strand/Specialisation in Applied Chemistry (based on demand):				
SAM821S	Synthetic Aspects in Medicinal Chemistry	None	8	15
EPM821S	Environmental Pollution, Monitoring & Remediation	None	8	15
ENS821S	Entrepreneurship	None	8	15
Plus TWO of the following Strand Elective courses for Strand/Specialisation in Applied Physics (based on demand):				
ASO821S	Astrophysics	None	8	15
MAP821S	Materials Physics	None	8	15
ENS821S	Entrepreneurship	None	8	15

DEPARTMENT OF MATHEMATICS AND STATISTICS**Code 51****QUALIFICATIONS OFFERED**

Bachelor of Science Honours in Applied Mathematics (Revised) (Phased in 2015)	08BSMH
Master of Science in Applied Mathematics (Phased in 2016)	09MSAM
Bachelor of Science Honours in Applied Statistics (Revised) (Phased in 2015)	08BSSH
Master of Science in Applied Statistics (Phased in 2016)	09MSAS

**BACHELOR OF SCIENCE HONOURS IN APPLIED MATHEMATICS
(Revised Programme) (Phased in from 2015)****08BSMH****NQF Level: 8****NQF Credits: 135****NQF Qualification ID: Q0710****Description**

The Bachelor of Science Honours in Applied Mathematics is a postgraduate specialisation degree that aims at consolidating and deepening the knowledge and expertise in the mathematics discipline, and to develop student's capacity to conduct supervised research of an applied nature. The programme is purposefully designed to enable students to evaluate and apply mathematical theories, techniques and models to solve complex mathematical related problems that face the public and private sectors.

Admission Requirements

Candidates for the Honours degree would have completed the B.Sc. degree or equivalent with a minimum average of 60 % in the major subjects. However, the admission to the B.Sc. Honours is competitive.

Course Title	Course Code	Prerequisite(s)	NQF Level	NQF Level
Semester 1				
Partial Differential Equations	PDE801S	None	8	15
Applied Numerical Analysis	ANA801S	None	8	15
Research Methodology	RME801S	None	8	15
Plus ONE of the following Electives:				
Advanced Complex Analysis	ACA801S	None	8	15
Advanced Calculus	ADC801S	None	8	15
Semester 2				
Applied Operations Research	AOR802S	None	8	15
Functional Analysis	FAN802S	None	8	15
Mini-Thesis	MTS802S	Research Methodology	8	15

Transition Arrangements

The current one-year Bachelor of Science Honours in Applied Mathematics will be allowed to continue with the existing curriculum until 2016. The current programme (old curriculum) will be completely phased out by the end of 2016 after which students in this category must automatically switch to the revised programme (new curriculum) and fulfil all requirements based on the new curriculum in accordance with information in Table 1 below:

Table 1: Corresponding Courses

Course Code	Bachelor of Sciences in Applied Maths Honours (Old Courses)	Course Code	Bachelor of Sciences Honours in Applied Maths (New/Revised Corresponding Courses to be Done, if Failed)
PDE410S	Partial Differential Equations	PDE801S	Partial Differential Equations
CAN410S	Complex Analysis 2	ACA801S	Advanced Complex Analysis
ADC410S	Advanced Calculus 1	ADC801S	Advanced Calculus
ADC402S	Advanced Calculus 2	ADC801S	Advanced Calculus
ANA410S	Applied Numerical Analysis	ANA801S	Applied Numerical Analysis
MHP420S	Mathematical Programming 3	AOR802S	Applied Operations Research
FAN420S	Functional Analysis	FAN802S	Functional Analysis
RPM420S	Research Project	MTS802S	Mini-Thesis
RMA411S	Research Methodology		Research Methodology

**MASTER OF SCIENCE IN APPLIED MATHEMATICS
(Phased in 2016)****09MSAM****NQF Level: 9****NQF Credits: 240****NQF Qualification ID: Q0894****Description**

The Master of Science in Applied Mathematics is a postgraduate specialisation degree that aims at consolidating and deepening the knowledge and expertise in the Mathematics discipline, and to develop student's capacity to conduct supervised research of an applied nature. The programme is purposefully designed to enable students to evaluate and apply mathematical theories, techniques and models to solve complex mathematical related problems in the specialised areas of Optimisation (including Operations Research), Generalised Fluid Dynamics, Financial Mathematics, Computational Methods, Biomathematics and Mathematical Ecology, that face the public and private sectors.

Admission Criteria

Candidates will be considered for admission into the Master of Science in Applied Mathematics if they have a minimum of Bachelor of Science in Applied Mathematics Honours from Polytechnic of Namibia/Namibia University of Science and Technology or equivalent qualification in a related discipline from any other recognised institutions. In either case, the candidate should have proven evidence of having conducted supervised research. Evidence of communication proficiency in the English language is required. Candidates may be required to attend a pre-selection interview at the discretion of the Postgraduate Study Committee, to ascertain their competencies for independent research in a specialised area of Applied Mathematics.

Registration prior to the approval of a research proposal is provisional and will be made official only when the proposal is approved by the Postgraduate Studies Committee. These procedures will be fully explained to each prospective student during their personal interview.

Articulation Arrangements

Students who complete the Master of Science in Applied Mathematics programme successfully will be able to pursue a Doctor of Philosophy (PhD.) research in Mathematics, or a related cognate area of learning, at NQF Level 10.

Mode of Delivery

This programme will be offered on the full time and part-time modes of study in accordance with the University's rules and regulations. The delivery mode will also employ the blended learning strategy of the University, which includes the online learning (i.e., E-Learning) facilitation.

Requirements for Qualification Award

The Master of Science in Applied Mathematics will be awarded to students credited with a minimum of 240 NQF credits (all at NQF Level 9). The thesis will represent the entire body of work to be assessed and must meet the University's requirements as detailed in the rules for postgraduate studies. However, students are required to make oral presentations of their research proposals within the first six months of registering for the programme and attend a number of scheduled seminars at the discretion of the supervisors to evaluate their progress and be provided useful feedback towards improving the quality of their theses.

In addition, students should meet the administrative and financial requirements as spelt out in Part 1 of the NUST Yearbook.

Teaching and Learning Strategies

The requirements of the NQF underline the acquisition of cognitive skills and competencies exceeding the knowledge and understanding of subject specific knowledge items and professional/technical competencies. Thus, the qualification focuses on the engagement of students in interactive research activities through supervised and collaborative work with supervisors and peers in order to provide for the development of generic research and intellectual skills in Applied Mathematics, with respect to the proposed areas of specialisation listed above.

This research activities and facilitation will include in-depth literature review and problem-solving seminars. Students will be encouraged to engage with the industry in Namibia to identify problems solvable by their research contributions, and also to take advantage of updating their knowledge through conferences and workshops both locally and internationally during the research programme.

The Postgraduate Studies Committee, on the recommendation of the Departmental Postgraduate Research Committee, will appoint supervisor(s)/co-supervisor(s) for each student. Students will be required to work independently in accordance with a pre-agreed research plan. Students will be supervised, guided and supported through regular contact sessions using all available means during which study planning, progress, and other relevant topics are discussed. Academic support will be provided in accordance with the University's rules and procedures for postgraduate studies leading to the award of research degrees.

Assessment Strategies

Students are required to submit a research proposal within six months for approval by the Postgraduate Studies Committee. It is compulsory that students attend regular research methodology seminars until successful defence and approval of the research proposal. Students are required to present work-in-progress every six months during research seminars for monitoring and assessment purposes. Students who fail the initial assessment of the research proposal will receive an extension of three months for re-approval.

In compliance with the general requirements of Senate, students are required to submit a thesis for evaluation, which should comply with international academic standards. The thesis requires students to work independently and to investigate their own individual research topic. Students are required to cultivate professional work ethics to deliver the combination of research, analysis, communication and presentation demanded by their theses. The thesis will be assessed in accordance with the rules for studies at postgraduate level.

Students will present and defend their theses before an appropriate constituted committee and an External Examiner in accordance with the rules for postgraduate studies at the University. Each thesis will be returned to the student for correction, before final binding and archiving. Final mark will only be released after the suggested correction(s) have been implemented in the thesis.

Transition Arrangements

This is a new programme and does not replace any existing NQF registered qualification. Transition arrangements will be developed and applied when the programme is due for revision.

Full time			Part time		
Course Code	Course Title	Prerequisite	Course Code	Course Title	Prerequisite
Year 1					
Semester 1			Semester 1		
TAM911S	Thesis	None	TAM911P	Thesis	None
Semester 2			Semester 2		
TAM912S	Thesis	None	TAM912P	Thesis	None
Year 2					
Semester 3			Semester 3		
TAM913S	Thesis	None	TAM913P	Thesis	None
Semester 4			Semester 4		
TAM914S	Thesis	None	TAM914P	Thesis	None
Year 3					
Semester 5			Semester 5		
TAM915X	Thesis Extension		TAM915P		
			Semester 6		
			TAM916P	Thesis	
Year 4					
			Semester 7		
			TAM917P	Thesis	
			Semester 8		
			TAM918P	Thesis	
Year 5					
			Semester 9		
			TAM919X	Thesis Extension	

**BACHELOR OF SCIENCE HONOURS IN APPLIED STATISTICS
(Revised Programme) (Phased in from 2015)****08BSSH****NQF Level: 8****NQF Credits: 150****NQF Qualification ID: Q0711****Description**

The Bachelor of Science Honours in Applied Statistics is a postgraduate specialisation degree that aims at consolidating and deepening the knowledge and expertise in the statistics discipline, and to develop student's capacity to conduct supervised research of an applied nature. The programme is purposefully designed to enable students to evaluate and apply statistical theories, techniques and models to solve complex statistically related problems that face the public and private sectors.

Admission requirements

Candidates for the Honours degree would have completed the B.Sc. degree or equivalent with a minimum average of 60 % in the major subjects. However, the admission to the B.Sc. Honours is competitive.

CURRICULUM**Semester 1**

Course Title	Course Code	Prerequisite(s)	NQF Level	NQF Credits
Statistical Quality Control	SQC801S	None	8	15
Stochastic Processes	STP801S	None	8	15
Research Methodology	RME801S	None	8	15
Plus ONE of the following Electives:				
Advanced Calculus	ADC801S	None	8	15
Biostatistics	BIO801S	None	8	15

Semester 2

Multivariate Analysis	MVA802S	None	8	15
Mini-Thesis	MTS802S	Research Methodology	8	30
Plus ONE of the following Electives:				
Sampling Theory	SAT802S	None	8	15
Applied Operations Research	AOR802S	None	8	15

Transition Arrangements

The current one-year Bachelor of Science Honours in Applied Statistics (old curriculum) will be allowed to continue with the existing curriculum until 2016. The current programme (old curriculum) will be completely phased out by the end of 2016 after which students in this category must automatically switch to the revised programme (new curriculum) and fulfil all requirements based on the new curriculum in accordance with information in Table 1 below:

Table 1: Corresponding Courses

Course Code	Bachelor of Sciences in Applied Stats Honours (Old Courses)	Course Code	Bachelor of Sciences Honours in Applied Stats (New/Revised Corresponding Courses to be Done, if Failed)
ADC411S	Advanced Calculus 1	ADC801S	Advance Calculus
RMA411S	Research Methodology	RME801S	Research Methodology
SQC411S	Statistical Quality Control	SQC801S	Statistical Quality Control
NPS411S	Non Parametric Statistics	STP801S	Stochastic Processes
MVA421S	Multivariate Analysis	MVA802S	Multivariate Analysis
RPM420S	Research Project	MTS802S	Mini-Thesis
MHP421S	Mathematical Programming 3	AOR802S	Applied Operations Research
TSA421S	Time Series Analysis and Forecasting	SAT802S	Sampling Theory
	None	BIO801S	Biostatistics
DAE411S	Design & Analysis of Experiments		None

**MASTER OF SCIENCE IN APPLIED STATISTICS
(Phased in 2016)****09MSAS****NQF Level: 9****NQF Credits: 240****NQF Qualification ID: Q0893****Description**

The Master of Science in Applied Statistics is of interdisciplinary nature that aims at consolidating and deepening the knowledge and expertise in the Statistics discipline, and to develop student's capacity to conduct supervised research of applied nature.

The programme is fully aligned with requirements of the National Qualifications Framework (NQF) and the NUST Curriculum Framework. It also conforms to the regional and international standards and quality requirements

Admission Criteria

Applicants will be considered for admission into the Master of Science in Applied Statistic if they have a minimum of Bachelor of Science in Applied Statistic Honours from the Polytechnic of Namibia/Namibia University of Science and Technology, or equivalent qualification in a related discipline from any other recognised institutions. Applicants need to provide evidence of having conducted supervised research; possess communication proficiency in the English language and may be required to make-up specific deficiencies in coursework at the discretion of the Postgraduate Studies Committee. In addition, applicants may be required to attend a pre-selection interview and/or test at the discretion of the department.

Applicants from other institutions must submit detailed information on all courses in their previous qualifications, as well as contact details of three referees. This also applies to applicants who have been working in the field subsequent to obtaining their previous qualifications.

Registration prior to the approval of a research proposal is provisional and will be made official only when the proposal is approved by the Postgraduate Studies Committee. These procedures will be fully explained to each prospective student during their personal interview.

Articulation Arrangements

The Master of Science in Applied Statistics will ordinarily provide access to further studies in the same area or related cognate area at Doctoral degree level, i.e., NQF Level 10.

Mode of Delivery

This programme will be delivered on a full-time and part-time basis in accordance with the Namibia University of Science and Technology rules. The delivery mode will also employ the blended learning strategy of the University, which includes the online learning (i.e., e-Learning) facilitation.

Requirements for Qualification Award

This qualification will be awarded to candidates credited with a minimum of 240 credits (all at NQF Level 9). The thesis will represent the entire body of work to be assessed and must meet the University's requirements as detailed in the rules for postgraduate studies. In addition, students should meet the administrative and financial requirements spelt out in Part 1 of the NUST Yearbook.

Teaching and Learning Strategies

The Postgraduate Studies Committee, on the recommendation of the Head of Department, will appoint supervisor(s)/co-supervisor(s) for each student. Students will be required to work independently in accordance with a pre-agreed research plan. Students will be supervised, guided and supported through regular contact sessions, using all available means during which study planning, progress, and other relevant topics are discussed. Academic support will be provided in accordance with the University's rules and procedures for postgraduate studies leading to the award of research degrees.

Candidates are encouraged to pursue part of their research within the industries in Namibia, or at other recognised and established tertiary institutions abroad. The possibility to gain international exposure by participating in an international workshop/symposium will be promoted.

Assessment Strategies

Students are required to submit a research proposal within six months of registering for the programme, for approval by the Postgraduate Studies Committee. It is compulsory that students attend regular research seminars until successful defence and approval of their thesis. Furthermore, students are required to present work-in-progress every six months during research seminars, for monitoring and assessment purposes. Students who fail the initial assessment of the research proposal will receive an extension of six months for re-approval.

In compliance with the general requirements of Senate, students are required to submit a thesis for evaluation, which should comply with international academic standards. The thesis requires students to work independently and to investigate their own individual research topic. Students are required to cultivate a professional work ethic to deliver the combination of research, analysis, communication and presentation demanded by their thesis. The thesis will be assessed in accordance with the rules for studies at postgraduate level.

Students will present and defend their thesis before an appropriate constituted committee in accordance with the rules for postgraduate studies at the University. The thesis will be returned to students for correction before final binding and archiving. Final mark will only be released after the suggested correction(s) have been implemented in the thesis.

Transition Arrangements

This is a new qualification. It does not replace any existing NQF registered qualification.

Full time			Part time		
Course Code	Course Title	Prerequisite	Course Code	Course Title	Prerequisite
Year 1					
Semester 1			Semester 1		
TAS910S	Thesis	None	TAS910P	Thesis	None
Semester 2			Semester 2		
TAS912S	Thesis	None	TAS912P	Thesis	None
Year 2					
Semester 3			Semester 3		
TAS913S	Thesis		TAS913P	Thesis	
Semester 4			Semester 4		
TAS914S	Thesis		TAS914P	Thesis	
Year 3					
Semester 5			Semester 5		
TAS915X	Thesis Extension		TAS915P		
			Semester 6		
			TAS916P		
Year 4					
			Semester 7		
			TAS917P		
			Semester 8		
			TAS918P		
Year 5					
			Semester 9		
			TAS919X	Thesis Extension	